

FIRST LINES
OF THE
THEORY AND PRACTICE
IN
VENEREAL DISEASES.

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THE FOLLOWING
W O R K
IS INSCRIBED,
AS A TRIBUTE OF GRATITUDE
AND PRIVATE ESTEEM,

BY HIS MUCH OBLIGED SERVANT,

THE AUTHOR.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT
CHICAGO, ILLINOIS
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TO THE HONORABLE
THE PRESIDENT OF THE UNIVERSITY
AND THE FACULTY
OF THE PHYSICS DEPARTMENT

THE FOLLOWING
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BY
J. J. THOMSON
AND
H. A. WILSON

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PREFACE.

P R E F A C E.

THE following Treatise is offered to the Public as the substance of a course of lectures delivered repeatedly last winter on this subject. As it is the Author's intention to continue these, and render them still more useful by the addition of such morbid preparations as can be procured, and other apparatus, it was deemed proper that a more complete Text-book should be submitted to the attention of practitioners, as enabling them to form a better judgment of the propriety of the undertaking than could be done from the slight view which a small syllabus afforded. This became also the more necessary since the publication of Mr John Hunter's ingenious and masterly work; as it will be best seen what the author owes to Mr Hunter, and what is properly his own.

THE motives which principally urged him to begin this course were, the frequency of venereal complaints, and the undecided state of the practice for their cure; which point out the necessity for the education of practitioners being conducted with a view to particular subjects of medicine alone, and which renders therefore a more minute division of this science than what has been yet attempted necessary. By this restriction of the attention to particular subjects of a science, many advantages are gained; and, in medicine, it is absolutely requisite in order to make the same progress as in the others. The dwelling on particular objects, it is well known, makes them appear in a very different light from what a superficial inspection creates; and the daily observation of the same subject leads at last to an intimate acquaintance with its nature, which can never be acquired by accidental views of it. In directing such a plan of medical improvement, the venereal disease seemed to open a proper field; both as it requires a variety of knowledge to excel in its practice, and as the profits arising from the pursuits of it are fully adequate to reconcile certain practitioners to such a limited exercise of their profession. It was from these motives Mr Plenck of Vienna first delivered a distinct course of lectures on this disease; and he has published

a very extensive syllabus of it under the title of *Doctrina de Morbis Venereis*. His plan, however, is considerably different from the present one; and, in the view of his subject, Mr Plenck has included almost every disease, by marking the venereal virus as its cause; so that, in this way, no just and precise idea of its nature can be formed. At Paris, also, a course of the same kind is regularly continued every season by Mr Fabre; and in London Mr John Hunter was the first who pointed out the importance of such a plan, by dwelling in a particular manner on this disease in the course of lectures he delivers on surgery.

BUT though we thus contend, that for the progress of medicine the practice of individuals should be very much limited, we would by no means wish it inferred, that the preparatory knowledge, or education in general, of those of the profession should be contracted in the same degree. Medicine is not an art; it is a science connected with many others; and requiring, for a proper knowledge of it, an acquaintance with philosophy and most branches of polite literature. Were the education, then, to be confined in the same manner as we would wish its practice, it would naturally be giving

giving room for empiricism; and though it might perhaps benefit the profession in some things as an art, it would certainly injure it materially as a science. Hence what should be aimed at, is only that, after a general knowledge of his profession, every practitioner should select a particular part of it, more or less extensive as the circumstances of his situation will allow, for his sole pursuit. Nay, the evident necessity for a general knowledge of the science, before this particular application to one branch, will be established by reflecting but a little on the present subject. The venereal disease, in certain circumstances, has a connection with a great part of medicine. Symptoms arise from this source which are common to a number of diseases; and Mr Plenck, on this account, has gone so far in his syllabus as to note under this cause most of the diseases to be met with in the systems of nosology. Besides, the venereal disease attacks persons under particular circumstances, with which it is necessary for us to be acquainted. Thus, it frequently occurs during pregnancy; and of the state of constitution attending gestation we must therefore be properly informed.

IN

IN tracing the history of most diseases, certain circumstances attend their origin which we cannot altogether account for. This is particularly the case in the venereal disease; and its appearance in Europe is perhaps the most remarkable æra to be met with in the annals of medicine. From its very first attack it became an object of very general attention; and though it has shared the same in every age, its nature is still less understood than that of most others which have been less attended to. This perhaps arose partly from the early acquaintance with the use of mercury, from the success of which practitioners soon entertained the idea of this mineral being an antidote for the venereal poison; while, from the rapid progress of the disease, and the number of its victims, its treatment becoming a profitable employment, interest soon found it for its advantage to conceal the means of cure; and chemistry then beginning to be in vogue, supplied it with the means of doing this. Thus mercury under various forms, which eluded detection and increased its activity, was ushered into the world under the name of different specifics of infallible operation; and while physicians every where else disclaim empiricism from their practice, it is unluckily continued here even to the present day. Baron Van Swieten very justly remarks, that

little

little trust is to be put in the venders of secret remedies; and the same observation may be applied to the use of every medicine, which practitioners have dignified with the name of Specific. The principles on which the cure of the venereal disease proceeds have never yet been properly established. Under certain circumstances a remedy is known which will cure, but this remedy is found even frequently to fail; and then, from want of principles, an uncertainty takes place with regard to what other auxiliaries may be called in to assist it. Hence the number of different medicines which have been employed for the relief of complaints supposed incurable by mercury, and which arose very much from their not attending to its mode of action and the state of the system necessary to the success of the latter.

FROM this circumstance which led to the concealment of remedies in the practice of the venereal disease, the facts too which are delivered in regard to their operation are highly exaggerated; and of the number of venereal cases which have been ushered into the world as proofs of remarkable cures, perhaps not one half of the circumstances described there are to be considered as just. This, however, we need not con-

fine

fine entirely to the present disease. It will apply to the whole of medicine ; and the best proof of its veracity is the constant fluctuation of opinion on the nature of diseases which every age discovers, and which, were the facts whereon they are founded just, could not happen. A preconceived opinion misleads our judgment ; and theory hastily formed, instead of being a deduction from real practice, is too often its guide.

THE intention, then, of the present work is to ascertain, as far as possible, the principles of cure in this disease. On this account we shall not enter very fully into its history. This, however, is done so ably by Mr Hunter, that it would indeed be unnecessary. We mean not by it to enter the lists with an author of such eminence. His acuteness of observation, and extensive experience in the present complaints, render his publication a most valuable acquisition, and from which practitioners in general will derive the greatest information. If, however, we may be allowed to hazard our sentiments, Mr Hunter's work seems better calculated for the more experienced of the profession than for those who are as yet students.

IN the perusal of the present work, many new opinions will be discovered. One principle we set out with, which is, the connection between all diseases from a specific source; and this we consider as the cue to explain the principles of cure in the constitutional form: for while in every other disease we form certain indications for its cure, in the venereal disease few writers form any except merely how to regulate the use of mercury. Whatever new forms of practice have been recommended are from experience of their success; and none, we hope, will condemn them without a fair trial of their effects. As the work was put to the press in a hurried manner, we flatter ourselves the inaccuracies of language will be overlooked. Elegance is not aimed at: all we wish is to be understood.

THE plan we have divided into four principal parts. The first comprehends the effect of the virus on a mucous surface; the second, on surfaces that pass into ulceration; the third comprehends its action on glands; and the fourth, on the constitution at large. The consequences of each of these are considered in their natural order after the primary disease. On many parts of the subject, it will be observed, we

have not been so full as what they would seem to admit; and particularly on the management of the bougie, and on some of the consequences of gonorrhœa: but Mr. Hunter has treated them in such an able manner, that this defect is abundantly supplied.

INTRO-

THE JOURNAL OF THE
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INTRODUCTION

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE is a quarterly publication, and is intended to contain original researches and reports on the progress of the study of man and his history. It is a journal of the highest scientific character, and is intended to be a permanent record of the work of the Institute. The subjects of the Journal are the physical, mental, and moral characteristics of man, and the history of the human race. The Journal is published by the Royal Anthropological Institute, and is distributed to the members of the Institute and to the libraries of the University of London.

London: Royal Anthropological Institute, 1880.

INTRODUCTION.

I.

THE Venereal Disease hardly admits a general definition. It is necessary, however, to attempt one; and it may perhaps be considered as "a certain cachectic state of body, displayed in ulcerations of particular parts, having at first a red purplish appearance, in the form of efflorescence; and at last, when assuming the proper ulcerated form, emitting a peculiar greenish-yellow discharge; and this constitutional state is commonly preceded by various topical affections of the genital system."

I.

II.

II.

BUT the appearance of the discharge from ulcerations cannot always be depended on as forming a certain diagnostic of the disease; and in order, therefore, to distinguish in the present case their specific nature, our opinion is determined by the consideration of three circumstances, which taken together ascertain it.—These are,

1. The previous situation of the patient.
2. The present symptoms. And,
3. The effect of mercury, or other medicines, in the cure.

III.

IN treating this disease, various methods have been pursued by different authors. Some considering it first in its constitutional state, and thence descending to its various topical affections; others observing an opposite plan, and tracing its gradual progress into the system. The latter is preferable; or prosecuting the disease from

from its most simple form to its more complicated state.

IV.

THE nature of the venereal virus, like that of most poisons, we are unacquainted with. When applied, however, to the surface of the body, we find it produce those effects which constitute the different forms of the present disease; and in order to their production, it requires to be,

1. In a state of fluidity.
2. In contact with the surface it affects.

And,

3. Applied while this surface is in action.

V.

WITH respect to the first of these, all poisons, we observe, can only act in a volatile or fluid state. In the former, they produce most commonly particular species of the exanthemata; in the latter, of the cachexiæ. And though, from the novelty of the disease at first, the contagion of this

malady was supposed capable of being conveyed by the atmosphere; yet it is now ascertained, that it never acts but in the form of pus, or a secretion of a similar appearance, the effect of inflammation.

In regard to the second, or its being in contact with the surface to be affected by it, this is not even sufficient; for in the Lock Hospital, where exposure to infection is unavoidable from sleeping in the same bed, the disease, from the most accurate observation, has never been known to take place.

We have, therefore, ventured a step farther, and alleged a state of action in the surface as absolutely requisite to its introduction: while, in order to explain this, it may be observed, that, in particular situations, the lymphatics do not always absorb; that they possess certain periods of action; and that, when these periods do not occur, they are in some measure collapsed, and no absorption can happen. It is always so in the penis, except during erection; and this state, therefore, of the
absorbents

absorbents, which erection produces, we consider as highly necessary to the absorption of the virus, or production of the disease. In support of this opinion, it is remarked by Mr Cruikshank, that even in the application of medicines this circumstance requires attention; for he has observed, that in the evening, where, from a collapsed state of the absorbents, or want of disposition to act, the introduction of such substances into the surface could not be effected, it has happened with the greatest ease in the morning, when this state was removed.

VI.

THE several ways, then, in which the present disease is received, is by exposure of the surface in this state, either in coition, kissing, suckling, or the treatment of venereal sores. And to understand something of its general action in these ways, it is proper to be a little acquainted with the nature of surfaces, or the primary parts on which its operation is displayed.

VII.

SURFACES may be divided into two kinds, secreting and porous; each possessed of a different organisation, and displaying different degrees of sensibility, which influence considerably the action of morbid causes upon them. The former is covered with a thin cuticle, is marked by a considerable acuteness of feeling, and forms the covering of those passages that lead to particular organs. It is always distinguished by forming a secretion, the quantity of which is much connected with its degree of sensibility; and the variety in the nature of this secretion occasions its being divided into two species, according to the different purposes for which they are intended; the one emitting a thin exhalant discharge, serving as a ready solvent to substances applied to it, and increasing the power of their action on the part; and this sort of surface we term a Seriferous one: the other, possessed of a more glandular structure, and discharging, on the contrary, a
thick

thick bland mucus to defend it from irritation, thus counteracting its natural sensibility, and impeding in its progress the passage of any noxious matter applied to it; and this we stile a Mucous Surface. The porous or exhalant surface, again, is covered with the common skin, and admits only an insensible exudation from the extremities of its organised pores; while, from its lessened sensibility, it is only affected by circumstances exciting in it a state favourable to absorption (XI.)

VIII.

FROM this structure the secreting surfaces are most favourable for the reception of the venereal virus; and the infection is commonly received in them either by kissing or coition.

IX.

IN kissing, it affects somewhere about the lips or a seriferous surface; and displays itself, when introduced in this way, with greater virulence than when received by

any other mode of infection. This is confirmed by the perusal of authors; while in such cases it generally appears very quickly, and proceeds with a rapidity almost uncommon to the disease in other situations to its constitutional stage. Dr Swediaur gives one remarkable instance of this kind, in the case of a young lady, where it followed the transplanting of a tooth; and it was attended with such obstinacy as resisted the most powerful applications. A similar example is likewise quoted by Mr Cruikshank; and it is from this circumstance Mr Hunter has remarked, without attempting to explain it, that some secreting surfaces are more susceptible of receiving the infection than others. It is in this way, by its introduction thro' a seriferous surface, that many authors have supposed the miasma of fever to be conveyed, the saliva proving a proper solvent favouring its action: and so much does the secretion of this surface favour the action of causes upon it, that under the use of mercury, from its proving such

a ready solvent to the mineral, and of course increasing its activity here, ulcerations form from the remedy itself; and this solvent power is farther confirmed by the experiments of Mr Plenck. Hence the use of the salivary secretion is in some measure ascertained, both as giving activity to the organ of taste, and serving also in some degree to the digestion of the aliment.

X.

IN coition, the virus is deposited on a secreting surface of both kinds. 1. It is deposited on a seriferous surface when chancre affects the prepuce or neighbouring parts; but its sensibility is here less than in the former situation, from the friction which attends the use of these parts blunting its natural delicacy, and from its secretion being in such small quantity as to have little effect; so that in time it comes to approach somewhat in point of insensibility to the porous or exhalant. In young subjects, however, on a first infection,

tion, chancre here frequently proceeds with a rapidity equal to the former (IX.)

2. Its effects, again, on a mucous surface, or the membrane of the urethra, are very different from either of the former (IX. XI.): for, in consequence of the irritation here, merely an increased discharge of the natural secretion takes place; which blunting the effect of its primary action, a lesion of surface is thus prevented, as occurs in the former (XI.). And its consequences consist for the most part in nothing further than simple irritation: as a proof of which we find, that on the first sensations of its action here, by the use of a stimulant injection, occasioning a discharge of mucus, the disease is frequently entirely removed. At the same time, it is not to be concealed, that from a surface of this kind, being naturally weak on any excess of irritation, it is liable to have a lesion of it produced, or to go into ulceration; and even where it is strong, if the secretion of matter upon it is long continued, it may also induce the same effect. Hence the pro-

priety of preventing the long continuance of gonorrhœa, a practice formerly esteemed necessary to the success of its cure.

XI.

THE porous surface receives the introduction of the virus either in coition or suckling: and in both these cases, that state of the absorbents formerly contended for (V.) is remarkably displayed, owing to the turgescence of the parts in order to the performance of their functions; while, besides the mere application of the virus and even excited state of the lymphatics to receive it, a degree of friction is also conjoined, which tends greatly to promote the action of the virus, and increase the sensibility of the part.

XII.

HENCE it may be concluded, that the operation of the venereal poison seems to depend on the structure of the surface receiving it being most powerful on a ferrous or the inside of the lips; less so on a porous

porous or the common skin; and least of all on a mucous surface or the urethra. And to account for this small tendency to absorption, which the deposition of the virus in the urethra displays, Mr Hunter has advanced, that all simple inflamed surfaces are unfavourable to absorption, while the exulcerated, on the contrary, favour strongly its operation.

XIII.

WITH respect to the introduction of the virus during the treatment of venereal sores, this only happens where an abrasion of the skin or accidental wound takes place; a proof also of the state of action in the absorbents, formerly contended for (V.), being necessary. Such accidents are particularly liable to occur to accoucheurs in their attendance on labour where their hands are much exposed to receive it: And here, of course, the absorption from the situation of the lymphatics is conveyed to enter the circulation through the axillary glands. Of this mode of infection you
will

will meet with numerous instances in authors.

XIV.

ANOTHER mode commonly enumerated by most writers on the subject is that by generation; but it comes more properly to be considered in the sequel.

XV.

THESE, then, are the several circumstances, enumerated from IV. to XIV. which influence the introduction of the venereal virus. And from the action it always displays on surfaces both in its local and constitutional stage, different theories have been formed to explain its seat and the reason of this peculiarity it discovers.

XVI.

ONE of the most celebrated Theories on this head was that of Dr Boerhaave, who referred the seat of it to the Adipose substance being involved, he supposed, in that oily fluid with which that part of the human

man structure abounds. The late improvements of the lymphatic system were then unknown; and consequently the theory of diseases of this nature must have been very lame. To support his theory, which was attacked by Dr Astruc, Boerhaave was under the necessity of extending his idea of the adipose substance, and to suppose it continued over parts where it really had no existence: for Dr Astruc remarked, that the primary action of the venereal virus is generally on parts where no adipose substance is observable; and if this were the case, as Boerhaave alleges, those in whom there prevails the greatest quantity of adipose substance should be most liable to the attack of the disease. But it is a remark of practical writers, that the fattest people, on the contrary, are least liable to this infection; and women, too, who are generally, from the nature of their constitution, more inclined to obesity than men, are less susceptible of its attacks; and it usually displays itself, when they receive it, with a greater degree of mildness. Besides,

fides, the pathology to which Boerhaave's theory leads is highly reprehensible; as the mode of practice with him consisted in its constitutional stage in a total dissolution of every particle of the animal fat, which occasioned the most extreme debility, hardly to be recovered; in consequence of which, the patient frequently sunk under the use of his remedies.

XVII.

A LATER theory than Dr Boerhaave's was one which referred the seat of the disease, very justly, to the mucous and lymphatic systems, and that from its attraction for these particular fluids. That it affects only these fluids, we are clearly of opinion; and that the different secretions, nay the blood itself, contrary to common theory, remains uncontaminated. It has been often alleged, that the milk communicates the disease. This, however, we would deny, unless a læsion of some portion of the surface of the nipple secreting that pus, in which the disease appears always involved,

ved, takes place. Even the sweat seems free from it; and, like the other natural secretions, will not contaminate. Accidents have also shown, that the venereal virus is a matter incapable of digestion; that is, that when taken into the stomach, it has produced none of its specific effects. The action, however, of the venereal virus on the mucous and lymphatic systems we cannot refer to any particular attraction. It depends on certain laws of the animal œconomy, which direct the passage of noxious causes to this part. Affinities do not apply to an animated body; it is only dead matter that is subjected to chemical laws.

XVIII.

WE have thus considered the different circumstances which favour the introduction of the virus into parts; and the appearances it displays there, after its introduction is accomplished, merit next our attention.

XIX.

XX.

FROM these symptoms, then, we infer, that the nervous power or energy of the part receives some peculiar alteration; in consequence of which, a secretion connected with the state of the living principle in the part is formed. The state of the fluid itself has been the chief circumstance attended to in attempting its explanation; and the peculiarity it hereby acquires, termed

termed Assimilation, has been attributed to a certain species of fermentation, or intestine motion of the fluids themselves. This idea, first suggested by the Arabians, was extended to explain the pathology of every disease; and the theory of medicine, while the cause of morbid matter prevailed, was for long founded on this principle. As no proof, however, of the existence of this morbid matter in the greater number of diseases could be brought, so our knowledge in physiology becoming more perfect, this idea gradually lost ground; and though rejected from the greater number of diseases, it still retains a place in those which owe their origin to a specific virus. It is even used so lately as by Dr Swediauer. But the idea it conveys is highly improper; as fermentation is a process carried on by mere fluids, and also an operation of inanimate matter; while the causes applied to the body can only act on the sensible fibres of the part, and excite no farther action but in consequence of their effect here. Hence we find, that

it is not the quantity of matter which occasions the degree of this alteration, but the state of the sensible fibre to be influenced by its action: and hence that variety it displays in different constitutions; for it is observed, that from the same woman different men will have the disease with different degrees of violence.

XXI.

IN what this change producing assimilation consists, is a matter of much difficulty to explain. But though we cannot ascertain the specific state, we can yet mark the particular phenomena with which it seems connected.—These we find to be,

1. An increased determination to the part.
2. An extravasation of its fluids. And,
3. Their retention.

XXII.

THE first effect of the action of all bodies on the nervous system, is an increased

determination to that part primarily receiving the impression; and this from the mutual connection which takes place between the blood-vessels and nerves, and which occasion their observing always the same rout. Hence the vessels are to be considered as the great agents of the œconomy in producing alterations; and by the vessels and nerves thus observing the same course, the sensibility of the latter is increased to that degree as may enable them to throw off the morbid cause or resist the impression made.

XXIII.

WHERE, from the structure of the part, the increased determination mentioned in XXII. possesses a natural outlet, or the part performs a particular excretion, the accumulation is discharged in this way; but where no natural outlet of this kind occurs, or where, from the delicacy of the vessels, they are unable to resist the violence of their impulse, in consequence of the too powerful action of the morbid cause, extravation

travasation ensues, or the deposition of part of them into the cellular membrane.

XXIV.

WHEREVER fluids are extravasated (XXIII.), they are no longer affected by the vital principle of the part. They are subjected then to the same laws with inanimate matter; and a new change is then produced, the effect merely of heat and retention. This change is what constitutes properly fermentation, and produces a peculiar acrimony or superadded state, eroding the teguments of the part; and which in its various degrees has been named Pus, Ichor, &c. But this state we consider only, in the present case, as an additional circumstance; and it is the prior one which distinguishes more especially the action of a specific morbid cause. In the acute poisons, this last process does not seem necessary to the action of the virus: for the clear lymph of small-pox is found to succeed best in inoculation; and there are many instances of this disease without even

pustules being formed. In the lues venerea, in order to render the virus capable of its peculiar action, this second change is for the most part required; and hence we find it always combined with pus or a fluid of a similar nature, the effect of extravasation and retention; and its action, therefore, may be defined, The production of that state which gives occasion to the formation of pus.

XXV.

BUT the effects of poisons in the inflammations they produce, are not confined to the simple spot receiving the virus, and where the portion of assimilated fluid is accumulated. If violent, their influence is more extensive, and reaches to those parts with which they are connected; and thus a new species of inflammation is produced, termed Sympathetic. This arises more generally from the action of poisons than any other causes of disease; and is more especially detected in neighbouring glands, as from their enlargement it is
more

more apparent. It is often, however, difficult to determine whether it proceeds from this cause, or a real absorption has taken place. The swelling arising from it is generally marked by a softness, a slowness of progress, and a slight sensation of pain in proportion to its size. It requires commonly no particular treatment, unless very violent, when the simple means of obviating common inflammation succeed; but more usually it departs in the course of a few days, as soon as the more violent symptoms of irritation in the part producing it abate. This sympathetic inflammation seems an increase of the powers of the part aroused, to prevent the occurrence of disease. Hence Mr Hunter has observed, that such inflammations prevent the tendency to absorption. As it is difficult, however, in most cases depending on the action of poisons, to ascertain whether the inflammation is specific or merely sympathetic, and as we are afraid of the former taking place, in our management we are

generally directed by the consideration only of the specific cause.

XXVI.

FROM a review of these effects attending the action of the venereal virus, different attempts have been made by physicians to explain something of its nature. The true appearance of most animal poisons we are unacquainted with; being, as formerly observed, for the most part involved in an extraneous matter, the effect of their action. From the period of the appearance of the venereal disease coinciding with the chemical æra, it was generally referred to some of the classes of bodies which form the subject of this science. The manner of its action naturally placed it among the salts; but whether it was of an acid or alkaline nature, became matter of dispute. Astruc considers it as an acid; being, he says, inflammatory and corrosive. Cockburn goes some lengths to support this opinion, by observing, that it changes vegetable blue colours into red; and some physicians have endeavoured

endeavoured to confirm it still farther, by the nature of the remedies employed in its cure, which, they observed, was effected by alkaline salts and mercury, a mineral having a strong tendency to absorb acids. Others, again, have supposed it a lixivian alkali: and in support of it they remark, on the contrary, that it is cured by corrosive sublimate, the activity of which depends on an acid. By many it has been considered as depending on the existence of a peculiar species of animalcules, which they have termed Venereal. This theory, some years ago, gained ground in many parts of Italy and France; being supported by Redi in his experiments to ascertain the nature of the itch. But this is to be considered in some measure as an optical deception: for all the fluids in the body discover on examination the same appearance; and the venereal pus subjected to the microscope shows no sensible difference from any other: so that all diseases, without some other discriminating circumstance marking

marking the peculiarity of their action, might be referred to the same cause.

XXVII.

FROM the preceding observations, then, the specific nature of the venereal virus remains still unknown: but its action seems to depend on the state of surface to which it is applied; and in this there is often some peculiarity. Nay, Mr Cruikshank has remarked, he can suppose a situation in, which the state of surfaces is reversed, or in which the internal absorbents, contrary to what is commonly the case, are less active than the external. But this is not mere supposition; it frequently occurs in practice; and such constitutions are hardly to be affected by the most powerful internal remedies, while external applications very quickly perform a cure. Some constitutions we find also discover even a still greater peculiarity, being incapable of receiving the disease at all; and on what this depends, we cannot explain; while there are many who, on the contrary, though not
liable

liable to be affected by other irritations, are yet easily affected by this.

XXVIII.

The different situations and progress of the venereal disease has rendered a very common division of it to be made into its Local and Constitutional stage. In the first, it displays in almost every constitution a greater degree of virulence and a more rapid progress of its symptoms, assuming the form of acute disease. In the second, from its previous secretion in glands, or, what is something similar, its presence for some time in the general circulation, it acquires a greater mildness, and less power of irritation, partaking of the nature of chronic disease.

XXIX.

IN these different states, the several venereal affections are always to be considered in some degree as independent of each other, and as in no way connected in their cure. Thus gonorrhœa may be removed
without

without affecting chancre,—lues without gonorrhœa, &c.; and hence the necessity for regarding them as separate diseases.

XXX.

IN particular situations, the local effects also of the venereal virus are so trifling as to be hardly observed. Hence we find, among writers of the first authority, an opinion prevail, that the poison may enter the body and produce lues without any primary effect. Whether this is actually the case, we cannot absolutely determine: but it is observed, that moisture tends greatly to diminish the sensibility of surface; and that in those situations where much moist cold weather prevails, its local effects are less considerable. In such situations, the constitutional infection is more frequently met with; and it was in this state of weather the disease made its first appearance at Naples; that season being remarked for excessive rains and hazy weather, which produced famine through most parts of Italy: For the air, independent

ent of the matters diffused in it, has itself a sensible influence on the body, particularly on the surface or state of the lymphatic system. Hence we observe it acquire at certain periods a peculiar disposition, in consequence of which the influenza is known to appear. Wherever, then, the venereal virus enters the system in such a slight or even imperceptible way, it discovers more virulence in its constitutional stage, than where its effects are blunted by being some time confined in its primary action to the genital parts.

I. OF

I. OF GONORRHOEA.

XXXI.

THE primary effect of the venereal virus on a mucous surface we mentioned as occasioning merely an increase of its natural secretion in a morbid state; and the mucous surface on which it is most commonly deposited in the male, from the mode of receiving infection, is the urethra; the affection of which is termed Gonorrhœa.

XXXII.

1. IN the male,

The symptoms of this complaint, as usually described by authors, are very numerous; but there is no occasion for entering into their number or variety as a
2 guide

guide in practice. It is only those that, according to their degree, point out the presence and state of the disease; and which are to be considered, therefore, as leading ones that merit our attention. These may be reduced to the discharge, heat of urine, and cordee.

XXXIII.

THE discharge appears at first thin and lymphatic; being little altered, except in its quantity, from the natural state. As the inflammation increases, it soon assumes a yellow or greenish colour, flowing constantly from its orifice. When continuing a certain time in this state, it then acquires a more ropy and bland appearance; at last changing to a discharge of clear lymph, as at first, and at the same time gradually lessening in quantity.

The heat of urine is seldom felt for some time after the appearance of the former symptom. It is, however, much complained of, when the disease is once fully formed; and renders the patient afraid to void

void the discharge. When first beginning, it is felt near the orifice of the urethra; with time, it gradually extends upwards, becoming more diffused; and the pain from it is felt particularly acute, immediately after emission.

The cordee, the last symptom, consists in a tightness or curvature of the penis at its under part, which is felt particularly painful on erection; and depends on an extravasation of coagulable lymph into the cells of the corpus spongiosum of the urethra, which uniting them occasions a thickening of this part, and thus destroys the equal distensibility of the penis.

XXXIV.

FROM a consideration, then, of these symptoms, described XXXIII. it comes to be inferred, that gonorrhœa consists in an inflammation of the internal surface of the urethra; but this inflammation is frequently so slight as to constitute little more than the phlogosis of authors. The peculiarity, also, that marks this inflammation

here, is a certain circumscribed power which the action of the virus as specific displays, being confined generally to that part of the surface originally receiving it; though from the structure of the urethra and its natural sensibility, its effects are extended in consequence of sympathy; and thus the whole member, and even the contiguous parts, are brought frequently into a morbid state.

XXXV.

THE part of the surface originally receiving the virus on its deposition in the urethra, and which continues therefore primarily affected during the whole period of its action, we find to be the mucous glands; and that they form the principal seat of the disease, we have reason to conclude,

1. From these glands possessing every where greater irritability than the contiguous surface.

2. From a certain attachment the virus
D displays

displays to involve itself in this or a similar secreted matter.

3. From its being sometimes washed off by the urine; which shows it originally, when deposited, involved in this fluid. And,

4. From the mucous glands being particularly large near the glans; from which part, commonly within an inch and a half of the orifice, the first symptoms of pain and discharge proceed.

XXXVI.

As the mucous glands, then, form the seat of gonorrhœa, with a view to the practice of this disease in describing the structure of the urethra, it is properly divided into two parts; the first, extending from the external orifice to the bulb, where the specific action of the virus is commonly displayed, the mucous glands being here most numerous; the second, extending from the bulb to the neck of the bladder, being the seat of the different sympathetic affections which arise in the progress of the

the disease, or continue as consequences of the former morbid action of these parts.

But in order to establish with more certainty this opinion of the nature of the disease, it may be proper to review the different theories which have prevailed on the subject.

XXXVII.

THE first theory entertained on the seat of the disease was, that the higher parts of the urethra were alone capable of furnishing such a discharge; and as the fluids of all these parts, on their emission, pretty much resemble each other, the prostates, vesiculæ seminales, Cowper's glands, &c. were, according to the particular sentiments of each author, considered as primarily affected in this disease. Many unsurmountable objections, however, opposed such an opinion. For, first, these parts are too remote to suppose the contagious matter can have operated there, in such a short space of time as commonly

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intervenes

intervenes between the reception of the virus and the appearance of the discharge.

2. No discharge can take place constantly from these parts, as is the case in gonorrhœa, without one of two circumstances; either an erosion, which can only happen after a long continuance of previous inflammation, and would be likewise here incurable; or else an erection, which only occurs at certain times, at which alone the discharge is also produced.

3. The mode of cure by injections overturns this idea: for by them, we know, the discharge can be entirely restrained; which could not be the case were the disease in that situation; as they can only act on the penis, and are prevented by the structure of the parts from reaching the vesicul seminales, or near the neck of the bladder.

4. The prostates are wanting in many animals, as in dogs, which are subject to a discharge of the same appearance from

from the penis as the gonorrhœa in men.

And,

5. Actual dissection has shown these parts unaffected by the disease.

XXXVIII.

THE first, then, who ventured to suggest this opinion of the mucous glands being principally the seat of the present complaint, was Dr Cockburn, who wrote in the beginning of the present century: and to this opinion he was led by observation of the difference that takes place in the quantity of secretion from parts in a healthy and morbid state; as in the latter the mucous glands were capable of furnishing a sufficient discharge, while the symptoms of the disease could only be explained by the evacuation proceeding from such a source, and by their being most readily exposed from their situation to the action of the virus.

XXXIX.

THOUGH, from these proofs advanced
XXXVII. it is naturally inferred, that

the discharge at least, the principal symptom of the disease, is from the mucous glands; yet a question here cannot be avoided, Whether they are to be considered alone as the seat of it, or whether the discharge is merely a natural effect of their peculiar structure; the mucous glands being not more affected than the other parts of the reticular membrane, and intended to wash off the irritating cause in the same way as irritation of the eye, nose, and other organs, produces an increase of their several secretions to remove it? To determine this, it may be remarked, that the venereal virus seems to have a particular attraction for the mucous glands; that it always appears involved in a matter of this kind; and that poisons, in general, possess a natural tendency to affect certain parts of the system in preference to others. Thus the measles have a particular determination to the lungs, cancer to particular glands, &c. Hence it may be concluded, that these glands are really the primary seat of the infection,

infection, though the latter possesses a power of extending itself farther with time, and working its way by slow degrees deeper into the urethra; so that the reticular membrane comes to be affected, and the inflammation of it to take place, according to the extent of which exciting the action of the higher parts, the different symptoms that mark the violence of the disease arise.

XL.

BUT many authors, not content with an altered secretion of the mucous glands being sufficient to produce the disease, have still supposed, that in order to account satisfactorily for the symptoms added to this state, an ulceration of some portion of the urethra became also necessary: and in this they seemed confirmed by some appearances on dissection, where the disease had been long continued; and also by the disease being confined more particularly to one spot, seldom extending itself farther from the peculiar circumscribed action it always displays. This opinion, however,

is by no means well founded; and though it cannot be denied that ulceration of a part may happen, yet it is neither a frequent occurrence, nor is it to be considered, as many have done, essentially connected with the nature of the disease. Nay, the very symptoms oppose such an idea: for, 1. The sudden stoppage of gonorrhœa, in a number of cases, is a proof that no ulceration has taken place; as the discharge, had that been the case, would have only lessened in a gradual way. 2. In coryza, which is an affection of a similar surface, we find no ulceration occur; and, according to the observations of Mr Hunter, pus, we know, can be formed without a breach of solid. 3. The consequence of gonorrhœa, did ulceration happen, would in every instance be the production of pox; as the absorption by this lesion of the part, on account of the greater irritability of surface here, would be even more considerable than that from chancre. 4. The proof commonly allegèd, and confirmed by the dissections of Morgagni, of the appearance

pearance of excrescences in the urethræ of those who have died of this disease, when attended to, by no means establishes conclusively such a fact as the alteration of a mucous gland in consequence of inflammation; and its enlargement may occasion its rising into an excrescence without any breach of solid, in the same way as warts and polypi appear in different parts of the body. Nay, even those who support most strenuously this doctrine, from the small number of proofs which even dissections afford, have been under the necessity of alleging, that, from the situation of these ulcers, something peculiar in their nature might take place, by which no appearance of scar remained; and that the want of the access of the external air to harden the part contributed greatly to this effect: for even by Morgagni we find, that in the greater number of dissections in this disease, the urethra only appeared in a state somewhat moister than usual, and the surface a little reddened. In most, however, he observed, that the mucous glands or
cana-

canaliculi were obliterated; a proof, from their being more affected than any other part, of their forming the principal seat of the disease.

XLI.

BUT though thus supported by the authority of Morgagni, the more early writers, it must still be observed, are confident in their assertions of the existence of ulcers; which they maintain also, with equal authority, from dissections. • But even admitting these, it may be remarked, there is a great difference between the accidental consequences of a disease and the essential nature of the disease itself. Perhaps it is the want of attention to this circumstance which has introduced many false opinions of the nature of disease in general, and occasioned the advantages of dissection to be greatly over-rated: for not in one case of a hundred does ulceration here occur; and where it does, it forms then a different affection, and requires a difference of treatment. Besides, in the practice

practice of the early writers, from the long continuance of the discharge, where the surface was naturally weak and irritable, or by the improper use of injections then beginning to be employed, and of which a proper selection had not been then made, lesions here must have often unavoidably happened. Hence, though the fact is not to be denied as possible, and as then occurring; yet, in more modern times, this effect, where the disease is understood by the practitioner, will very rarely if ever take place.

XLII.

HAVING endeavoured, then, to establish the nature and seat of the disease, we next consider the period from infection at which it appears. With regard to this, however, no exact time can be mentioned; as all authors agree in the greatest variety observable in this respect. We trust always in this case to the report of the patient, who commonly judges from the first appearance of the discharge, though
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it has generally continued some time before it is discovered by this symptom. The period, however, of its appearance depends much on the particular irritability of the part in different constitutions, and also on some circumstances in the manner of its application, with which perhaps we are unacquainted. It commonly extends, from a few hours after being exposed to infection, to the same number of days, weeks, or even months. In general, where the disease is late of making its appearance, the symptoms are always milder; and tho' the running does not commence, a variety of uncommon sensations are usually felt in the part.

XLIII.

THE manner in which the virus is introduced into the urethra to form gonorrhœa, has admitted frequent disputes, and many theories have been formed to explain it on different principles; some considering the penis on emission as in the state of a capillary tube, unavoidably drawing up the
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the contiguous fluids of the vagina, &c. The most general opinion, however, of late, has been that of absorption. But this is by no means satisfactory; nor can the mode in which it is introduced be properly pointed out, as no absorbents enter from the surface into that part which forms the seat of the disease. To explain it, the late Dr Hunter supposed, that the skin about the orifice of the urethra being tender, comes to be inflamed by the application of the venereal virus to it in the vagina; and this inflammation spreading, produces next an exudation from part of the internal surface of the urethra. But were this the case, the point of surface externally round the orifice should be most affected, as being the primary seat of its application; while, on the contrary, we find it here very slight, and that the chief pain and inflammation are internally, and this even before any hiatus of the orifice or other signs of its inflammation occur. Nay, Mr Cruikshank on this theory has even gone so far as to suppose, that gonorrhoæa

rhœa depends on the irritation of the matter without; that it does not get into the urethra; and this he proves from the success at times of external washing. But many facts and daily experience overturn this opinion.

XLIV.

LAYING aside, therefore, the former theories on this subject, a more simple explanation may be offered, by considering the circumstances which attend the emission of the semen from the cavity of the urethra during the state of erection. The penis is formed of a substance not endowed with a very high degree of muscular power, particularly near its extremity; and this is even greatly diminished during erection by the very extended state in which it is retained: so that its fibres not yielding sufficiently near its extremity to assist the expulsion of the fluid, some portion of the semen is retained at the orifice on the detumescence or collapse; which

which is drawn naturally within the urethra, blended with the contiguous matter of the vagina, and is then applied to the surface, exciting a sense of slight pricking of the part at that instant, which immediately goes off, and is seldom attended to till more uneasy sensations arise.

XLV.

As absorption so rarely succeeds gonorrhœa, which is not the case in any of the other forms of the disease, authors were naturally led to suppose, that in this case the virus could not be of the same nature as that which, attacking other parts, produced the constitutional form. Hence came to be suggested the first idea of their both depending on a different cause, and that the virus of each was separately received in coition; the one from simple acrimony, the other from the application of the specific taint.

XLVI.

XLVI.

THE arguments which support this doctrine may be reduced to the following heads.

I. It is alleged, that the virus exciting gonorrhœa never produces constitutional lues. This, it must be confessed, is always the case: but it depends on the nature of the surface to which it is applied; for whenever, from the violence of the disease, or any improper treatment increasing its inflammatory state, a breach of solid in this surface is produced, and the disease assumes the nature of gleet, the virus receiving a certain change from the alteration of surface, absorption takes place, and constitutional symptoms supervene. In the same manner we find, that the catarrh consists in nothing more than simple irritation of the bronchial glands; yet in particular cases, when the cause of the disease has been increased, ulceration supervenes, and pthisis from this source, by extending itself to the lungs, then takes place.

place. Besides, we know that the same female frequently gives gonorrhœa to one and chancre to another; that perhaps in not more than one of a hundred cases is there any ulceration of the vagina, or any thing more than a simple irritation of the mucous glands; yet chancre occurs almost as frequently as gonorrhœa.

2. The second argument for this opinion is, that mercury, the specific in the one case, will not cure the other; or that gonorrhœa will depart of itself, while the effects of lues, unless prevented, always increase. The first of these, however, is not absolutely true, as gonorrhœa has certainly been got rid of during a mercurial course; but from its locality, indeed, this is not the method of curing it; and many local diseases, we know, as well as gonorrhœa, will resist the exhibition of general remedies: While, with respect to the second observation, it is a general law of the œconomy, that all diseases have a natural decay; yet this decay is connected with particular circumstances depending on the

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difference

difference of structure in parts. Thus, where it attacks secreting parts, the decay of the disease is produced by the effects of the secretion itself constantly supplied anew, and washing off at last the morbid cause; while, when the parts it affects are without secretion, the same takes place by the death of the solids affected.

3. The third argument adduced is, that the matter of gonorrhœa, applied to an excoriated surface, will not produce chancre; and if it produce a sore, lues will not follow. Three circumstances, however, are to be attended to here, which influence the action of the virus; and, though we do not deny the fact, sufficiently account for its want of effect.—The first is, that, in gonorrhœa, the virus is much diluted by its mixture with the mucus; and requires, therefore, in order to exert its power, a certain period of retention in the part, and a degree of irritability in it, as takes place in the urethra when the urine is discharged.—The second is, that a common sore may be considered in the light of a secreting

secreting surface; which, on irritation from the matter being applied, produces immediately an effusion from the extremities of the lesed vessels, and does not for any time admit its retention thus washing it off.—And the third is, that the period is to be considered at which the matter itself from the urethra is applied; as, according to most authors, the specific virus is soon washed off or rendered inactive by the increased secretion, and a laxity of the part from the previous irritation continues the discharge.

4. The history, also, of the venereal disease, affords some room for this difference of the two affections; and it is contended, that for 50 years after the appearance of lues, no description of gonorrhœa, as one of its leading symptoms, is given by any writer. It is farther confirmed by observation of what happened on the introduction of lues by the Europeans into Otaheite, where the constitutional symptoms appeared without any affection of the

urethra; and here, it is alleged, gonorrhœa is still unknown.

But the first accounts and descriptions of the lues are so confusedly and imperfectly narrated by the early writers, that no dependence is to be placed on this circumstance; and even admitting it, Dr Astruc has brought evidence of the occurrence of this symptom so high as within less than 40 years of the first appearance of lues; a very trifling period to count upon at such a distance of time, while the manner of conveying these diseases, and the daily observation of the one succeeding the other has been so constant since that time, that no stress is to be laid on such historical information. Nay, Dr Swediauer informs us, on the authority of Captain King, that the fact alleged with respect to its never appearing at Otaheite is false; for he had himself repeatedly seen there a discharge of matter from the urethra; while the explanation of this in a different way, by observing that they were not professional people who made the remark, and that

that discharges happen from the urethra from various causes, may be easily refuted; for other discharges from the urethra are for the most part the effect of chronic diseases, to which the inhabitants of that climate in their uncivilized natural state are less subject.

XLVII.

FROM these different arguments a conclusion may be drawn, that the virus producing gonorrhœa and lues are exactly the same; and that the difference in their nature is to be sought for in the difference in the structure of the affected parts, and not in any specific difference of the causes from which they arise.

XLVIII.

BUT though gonorrhœa is thus proved (XLVI.) the effect of a specific taint, a similar disease is also found to be produced by simple irritation of any kind independent of this cause: for the sensibility of surface of the urethra renders it easily affected by ir-

ritation; and its situation, as forming the passage through which the excretion of the kidneys flows, exposes it to all the effects which changes in that excretion may produce. Hence a distinction of gonorrhœa into two species has been made; but, tho' hinted at by different authors, Dr Swediauer is the first who has fully ascertained it by experiment. We have no diagnostics, however, that point out this distinction; though we may remark, that the urethræ of those who have frequently laboured under venereal complaints are less liable to be affected by common irritation.

XLIX.

OUR observations on this form of the disease have been hitherto confined to its appearance in the male. But in women this affection is somewhat different; being neither so complicated, nor yet the inflammatory symptoms running so high, from the want of action and lessened sensibility of the affected part depending on that difference of structure with which the exercise

ercise of their functions is connected; for, in the male, the urethra we find necessarily in very different states, while the vagina is always in the same.

L.

2. IN the female,

In general, however, the gonorrhœa here makes its appearance in the following manner.—Soon after the infection is received, an irritation is felt in the vagina; which degenerates, as in the male, into a sense of pain. This is followed by a tumescence and degree of stricture through its whole extent, which is increased by the acrimony of the urine producing uncommon heat and uneasiness on the external sympathizing parts when discharged. The running from the vagina then commences; assuming the same appearance, and undergoing the same changes in its progress, as when from the urethra. It is here, however, from the greater extent of surface it occupies, more copious and similar to the parts sympathizing in the male; the ute-

rine region, particularly along the course of the ligaments, the bladder, and at times even the kidneys, come to be greatly affected.

LI.

THOUGH these symptoms in the female mark the presence of the disease, yet from these alone we are not absolutely to infer its existence: for as in the male every symptom of gonorrhœa we find arise from any irritating power applied to the surface of the urethra without an actual specific taint; so here the same effect will be produced, as women are exposed, from the nature of their constitution and causes existing within themselves, to the operation of such a power; while men, again, generally receiving these appearances from external introduction, a venereal taint may be most properly suspected. Hence the surface of the vagina possesses a similar disposition with the urethra on the application of any acrimony, provided the natural mucus, which is secreted here in greater quantity
than

than in the urethra of men, is either deficient, or the acrid matter is so concentrated, as, though blended with it, to retain still its virulent power.

LII.

To ascertain, therefore, this disease, becomes a nicer point than in the other sex; and more especially as the delicacy of the female is so highly concerned. Many attempts have been made to furnish us with diagnostics on this head, and there is almost no author who does not pretend to give some criterion by which the certainty of its presence may be established. Nothing, however, satisfactory has yet been offered.

LIII.

THE source from which this uncertainty arises, is the fluor albus or whites; a disease peculiar to the sex, and the natural effect of that structure of the genital system with which menstruation is connected. Two species of this disease occur; and to understand fully the present subject, deserve each a separate consideration.

tion. The first may be considered as idiopathic, and depending on the state of the system at large; the second as entirely local, and arising from some partial affection of the genital parts, the consequence of injury or any other irritating cause. The first of these begins after any powerful cause of debility to which the system has been subjected, as laborious parturition, decline of life, &c. with a thin serous discharge, at first small, and giving no uneasiness, and departing at every period on the appearance of the menses. As it advances, its quantity becomes more profuse; and symptoms of debility, particularly pain in the back and loins, occur. The menses, also, no longer return as usual; but the same serous puriform discharge constantly continues. In this state it frequently acquires a degree of acrimony; and then symptoms of pain, ardor urinæ, and others, which attend gonorrhœa, begin to be felt. The distinction between this species of fluor albus and gonorrhœa is very easy, by the continuance of the discharge

charge for long before the painful symptoms marking the latter commence. In the latter species, however, where the evacuation is from the same source that is affected by the specific virus in gonorrhœa, its distinction is very difficult, and indeed hardly to be made; though authors have alleged, that the symptoms are always here milder, particularly the ardor urinæ, than when they arise from a specific taint.

LIV.

FROM the nature of fluor albus, and the symptoms it produces in the female, some authors have proposed an opinion, that the production of the venereal virus takes place in this way. The fluid within the vagina they suppose to be possessed of a peculiar nature, arising from the structure of the part; and as every change on the fluids, they allege, is connected with extravasation, an ulceration of part of the vagina will produce this extravasated state, and the effused fluid acquire then by stagnation

nation a change, or form a matter which may be termed Venereal. When infecting the male, this original matter then receives a greater degree of virulence, and the power of the contagion continues gradually to increase. Hence it is inferred, that men cannot originally generate the virus, from the parts in them being kept constantly in a state of action, by which such a process for its original generation is prevented. But an uncertainty attends the origin of all infections; and it is impossible either to detect the manner or cause of their first production. Even their specific nature escapes us; and we can only judge of them from their effects, as displayed on the body. We may remark, however, in opposition to the present theory, that the vagina seems very little disposed to receive the action of the venereal virus; and that, instead of assisting in its production, the mucus of the vagina often prevents altogether its operation. Nay, in some cases, the venereal virus in the vagina will infect the male with whom she

she has connection, and yet the patient herself be insensible of any effects of the disease: hence the report of the female, in regard to this point, can never be trusted, while that of the man always can.

LV.

WE have thus endeavoured to explain the nature of gonorrhœa in both sexes: and previous to entering upon its cure, it is necessary to inculcate strongly its locality; and that the effects of the venereal virus in producing it, consist in nothing more than simple irritation exciting as a consequence an increased discharge from not only the affected spot, but also the contiguous sympathizing parts, which from their structure admit a secretion of matter. With this view we affirm, that its cure is only to be performed by attacking it locally; and that in no case are constitutional remedies to be employed. Physicians have at all times been much addicted to quackery; and on finding out the good effects of any substance,
have

have endeavoured to apply it to all diseases analogous, without attention to that discrimination of circumstances which varies considerably the action of a morbid cause. Thus mercury, which had been found so successful in the treatment of the constitutional taint, was applied here; but the obstinacy of the complaint often surviving repeated salivations, induced them to suppose it as depending on peculiar circumstances, or as forming entirely a separate disease. The propriety, therefore, of a local cure soon appeared. Empyrics in this, as in most other useful discoveries, led the way; and regular practice, under certain limitations, after viewing its success, admitted its application.

LVI.

THE cure, then, of gonorrhœa as a local disease, may be reduced to three heads, comprising all the different modes of treatment that have been employed; and in all specific diseases of these parts, we are to consider, that we have both irritation

and inflammation to combat; the former from the stimulus of the urine which is unavoidably applied, and the latter from the specific cause of the disease.

1. The first mode of practice in gonorrhoea, consists in subduing irritability, by producing in the part a degree of insensibility to the action of the virus or atonic state.

2. The second in exciting, either in the seat of the disease, or a part contiguous with which it sympathises, an irritation superior to that of the morbid cause. And,

3. The third, in employing the common means of the antiphlogistic plan in obviating inflammation.

LVII.

THE first of these has only of late come into use; and from observation of the effect of opiates in inspissating the discharge and lessening the irritation of catarrh, its powers have been found, when applied locally, here equally successful.

Its

Its use, however, is yet by no means general; and even those who employ it have chiefly done it with the view of lessening the painful sensations of erection. But it deserves a more attentive application; and from considering the very nature of the disease, the propriety of this mode of practice comes to be very strongly marked. The disease consists, as already seen, in the formation of an acrid matter, the consequence of irritation. Whatever, therefore, takes off the irritability of those parts subjected to this irritation, must, if not absolutely stop the formation of this matter, at least lessen greatly its quantity, and produce it in a less acrid state. The attention of physicians have been chiefly paid to the state of inflammation in the urethra; tho', unless the source of this inflammation be removed, either by the natural decay of the irritating cause, or by such remedies as lessen its action, or render the parts insensible to its stimulus, the progress of the inflammation must advance; and the symptoms, in spite of all the antiphlogistic plan, persevered

persevered in, as consisting in irritation, not inflammation, must proceed; for the antiphlogistic plan is to be considered merely as the prevention of ill: but there is another and equally important indication to be formed with the view also of directly doing good. As a farther proof of the propriety of this indication, the disease we find most severe in those who possess here the greatest sensibility of surface favouring the action of the morbid stimulus, particularly in scrophulous and debilitated habits; for it frequently, in these cases, resists all the common methods of practice at present employed. Hence we contend, there is a state previous to inflammation, which inflammation only displays, and the removal of which is the principal step to the cure of the disease.

LVIII.

THE idea of washing away the venereal virus so long entertained, seems now to have greatly lost ground; as not being involved so much in the fluid discharged as

F affecting

affecting the parts secreting it. Nay, some authors have even gone so far in the opposite extreme as to advance, that the retention of the matter in the urethra is attended with no bad effects in increasing the state of inflammation, and that the secretion from parts under disease never affects the parts secreting it. Whatever there may be in this, attention to cleanliness is certainly proper; for if the disease consists in the formation of matter, and this matter is capable of communicating it to a sound person, it must likewise more forcibly act on a part diseased. Besides, in the case of cancer, do not the very parts secreting it suffer erosion from the discharge they pour out?

LIX.

As soon, then, as symptoms of gonorrhœa appear, the fulfilling early the present indication is the object to be attempted; and the use of opium in injection for this purpose, as the most powerful sedative, to be liberally had recourse to. The
solution

solution employed should be strong, frequently repeated to the part, at least every two hours, and retained there for some time; by which an immediate effect on the symptoms will be produced. If the case is slight, almost nothing else will be necessary for its cure; but where the disease has continued for some time, or occurred in a lax irritable habit, some running commonly remains from a debilitated state of the part, which readily yields to the use of some slight astringent. In incipient cases, to insure more effectually the cure, and where the inflammation is yet trifling, the combination of this with opium is commonly made; and the astringent which has been usually preferred on these occasions, as possessing also a degree of sedative power, is the preparations of lead.

LX.

THE certainty of the cure is to be judged of from the departure of inflammation, and especially from the ab-

fence of those symptoms of pain which mark the active state of the disease; as heat of urine, erections, and cordee.

LXI.

IN using injections on this principle, the medium of conveyance may be either a watery, mucilaginous, or oily fluid. Tho' the former allows the medicine to be more active, yet it requires a greater nicety in the strength of the composition, adapted to the state of the parts; while the latter retains the remedy longer in contact with the surface, and, by blunting its stimulant action, allows its sedative or secondary effects more certainly to take place.

LXII.

THIS, then, is the first mode of practice which is employed for the cure of gonorrhœa. It is also the latest; and, as most agreeable to the theory of the disease laid down, is what we would particularly recommend. Its success is every day gaining ground; and, instead of finding the
disease

disease spun out, as was common, to the length of six or eight weeks, a cure is now generally effected, where attention is paid to the use of this remedy, in as many days.

LXIII.

WE proceed next to enter upon the second plan of cure, which has been more generally followed; and the abuse of which, as requiring much nicety in its application, has been the means of occasioning practitioners of the first eminence to reprobate entirely the local treatment of the disease. It consists, as formerly mentioned, in exciting either in the seat of the disease, or in a contiguous part with which it sympathises, an irritation superior to that exerted by the morbid cause.

LXIV.

THE theory on which the former of these proceeds, is simply this :

As the action of the venereal virus in the urethra produces nothing farther, as

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already

already observed, than common irritation, without any specific or peculiar effect, and as an increased secretion is the natural consequence of this, by exciting a degree of adhesive inflammation, the power of secretion is diminished, and a degree of hardness produced, rendering the part unsuceptible of the farther action of the virus. In proof of this, we find Morgagni remark, that he found, on dissections of the urethræ of those who had been frequently subject to this disease, that the mucous glands or canaliculi forming its seat were more or less destroyed; and that, in some cases, an almost total obliteration of them had taken place. This mode of practice, however, in gonorrhœa, can only be safely had recourse to when the inflammation is slight, and the disease in its incipient state; or when the action of the venereal virus having ceased, there remains a discharge from debility, that is, from the disposition to secrete, a preternatural quantity of mucus being retained: for if employed in the very acute stage of inflammation,

inflammation, it must increase the painful symptoms, and perhaps even produce a lesion of surface in the part; thus laying the foundation of pox.

LXV.

THE remedies that act on this principle are either of a solid or fluid kind. The former are but seldom applied, and consist of the bougie, which before its introduction here is rubbed with calomel. Its effects are more permanent than remedies of a fluid nature; but it is liable, unless cautiously used, to be attended with hurtful consequences. In skilful hands, however, this practice will be found very successful, and particularly in some obstinate cases. In using it, attention is to be paid to the structure of the urethra formerly described, and not to pass it beyond its first division, or that part which forms the seat of the disease; though, it may be remarked, the less free in general we make with bougies, it will be the better.

The fluid remedies, again, of this class

are more numerous and more commonly employed. They may be arranged according to the following table, comprehending almost the whole that have been ever used at different periods in this disease.

LXVI.

TABLE of INJECTIONS *used in GONORRHOEA by different Practitioners.*

I. Stimulating.

a. *Vegetable.*

Injectiones Terebinthinatæ.

Injeçtio Balsamica, P. P. E.

—— Mellita. Monro.

Ol. Terebinthin. mitius. Lewis.

b. *Mineral.*

Injectiones Mercuriales.

—— cum Mercurio crud.

—— Calomel.

Injectiones Salinæ.

Solutio Corrosiv. Sublimat.

—— Turpeth. Mineral.

—— Ærug. Æris in Olco—in Aqua.

—— Lixivii Caustic.

II. Astringent.

II. Astringent.

a. *Vegetable.*

Injectiones Tonicæ.

Decoct. Cort. Peruv.

————— Querci.

Infus. Rosar. cum. Vin. Rubr.

Injectiones Stypticæ.

————— cum Bol. Armen.

————— G. Kino.

————— Sang. Dracon.

b. *Mineral.*

Aqua Spadana.

————— Calcis.

————— Aluminosa Bateana.

Solutio Sacchar. Saturni.

————— Ceruff.

————— Vitriol. alb.—Viridis.

————— Zinci.

————— Lap. Calaminar.

III. Sedative.

a. *Emollient.*

Injectiones Oleosæ.

————— Ol. Olivar.

————— Ol. Amygdal.

————— Lac Tepidum.

————— Mucilaginosæ.

————— Mucilago Gum. Arabic.

Injectiones

Injectiones Sem. Lini.

— Amyli.

b. *Antispasmodic.*

Solutio Opii.

Aqua Camphorata, P. L.

LXVII.

THE idea that has been usually annexed to the remedies of the two first classes, is that of suppressing the discharge; and hence, without considering the theory of their action, an astringency has been the only quality looked for. To give, therefore, some certain rules for the cure of the disease, and to insure the success of the applications on the present principle delivered, it has been divided by authors, according to the degree of virulence it displays in the progress of its action at different periods, into three stages, viz. the Incipient, Inflammatory, and Benign. Such a division proceeded on the idea of the discharge being in some measure critical: a doctrine arising from the Stahlian notions of nature expelling in this way the morbid cause; and

and which has given origin to an opinion, unhappily inculcated by some of the first writers on the subject, that a gonorrhoea cannot be cured speedily and effectually at the same time; while, in consequence of this doctrine, the continuance of the discharge has been considered as necessary to prevent the danger of constitutional infection. Facts, however, strongly oppose this idea; and though first inculcated by Sydenham, and afterwards enforced by Boerhaave, it by no means deserves any degree of credit in modern practice. The system of morbid matter, at that time prevalent, naturally led to such a conclusion; and a doctrine which had been universally applied to every other modification of disease, appeared equally well-founded to direct the pathology here. But it may be asked such authors, In what the very nature of the disease consists? Is it not, as already often observed, in the formation of matter of that pus, the consequence of irritation on a mucous surface, in which it appears always involved? If, then, you prevent the
2 formation

formation of this matter, you prevent the very disease; and the less matter that is formed, the disease on this principle will be milder. Why is the discharge at first mild and merely lymphatic, but from the small portion of matter formed to increase the irritation of the diseased parts? Besides, there is always danger, when the running is most copious, as observed even by some of these writers themselves, of lues taking place; which evidently shows it is no way critical, and supports the propriety of what is advanced.

LXVIII.

THIS last observation, then, when attended to, overturned, with many, the former opinion of the nature of the discharge, and led them to employ the present remedies, the use of which they had hitherto confined solely to the last stage of the disease indiscriminately. They were ill fitted, however, for this purpose; and by their stimulant action in its acute stage, where the sensibility of surface was considerable,

derable, increasing inflammation, they induced suppuration; and not only failed of their intended effect, but frequently did much mischief. It was the improper application of injections in this way, as well as their nature, that first occasioned such prejudice against the local treatment of this disease; a prejudice which still continues to prevail at present. Injections, however, were very early recommended by the ancient writers, and much supported in the beginning of this century by the practice of Blegny and Cockburn. The reasoning of this last author on the subject deserves much attention for his very just idea of the disease: for, contrary to the opinion of the writers of that period, he considers it with the greatest propriety, not as a vitiated semen, then commonly imagined; but as consisting in the formation of an acrid matter, the repression of which, or the preventing its formation, he regards as effecting a cure; and, on this principle, his applications were made to the seat of the disease. These sentiments, however,

however, of Blegny and Cockburn, from the circumstances mentioned in the practice of the disease then pursued, were soon after very successfully opposed by the writings of Turner and Astruc; and the authority of these authors, from their high reputation in this malady, rendered the local treatment of it for some time to be laid aside. But the inefficacy of internal remedies became soon evident; and practitioners, conscious, under certain limitations, of the success of a different plan, employed in private what from public prejudice they dared not avow; and in this manner has the practice continued to the present day.

LXIX.

WE come now to enumerate the several remedies of this class; and shall divide them according to their degree of power, as being taken either from the vegetable or mineral kingdom.

Of the first sort are, the barks, boles, and astringent gums.

Of

Of the second, the vitriols, alum, lime, mercury, zinc, and copper.

The different forms of these remedies it is needless to particularise, as they are readily met with on turning up any author on the subject. We shall add a few remarks on those that have been most commonly employed.

LXX.

THE general principle of the operation of such remedies has been already explained, and it consists in stimulating the part; but from the different degrees of action they exert in performing this, they are mentioned under the two appellations of Irritating and Astringent.

LXXI.

THE irritating are all highly stimulant; and should be very cautiously employed, as they often produce abscesses *in perinaeo*.

Their proper degree of strength is to be ascertained by their first effects on the urethra. They should give, on their touching,

ing the orifice, a moderate sense of smarting, but never excite acute or long-continued pain; and after their first application, the discharge, even where they are successful, is for some time rather increased.

One of the most celebrated remedies of this kind is the caustic alkali in a diluted state. It was first recommended by Sir William Fordyce of London; and became particularly famous as used by a physician in France, under the name of the Antivenereal Lotion. It seems best adapted to those who have been frequently subject to venereal affections of these parts, and in whom the urethra of course has gained a certain degree of insensibility. The way of using it, that has been found most successful, is simply this: Let a little be injected slowly into the urethra, and retained there for some time, when the increase of mucus will be discharged, and has been considered as a proof of its success; while, if the pain and inflammation induced by
2 it,

it, are not great, it is to be repeated at the distance of two hours.

The solution of corrosive sublimate has been likewise very much recommended. It is generally slight, in the quantity of two grains to eight ounces of fluid; and is often so successful as to cure in a few days. The great art is, in proportioning the degree of strength to the state of the parts; and this is only to be done by frequent experience in the use of this remedy.

LXXII.

THE astringent injections, again, only act by lessening the discharge, and have no great effect on the inflammation. That they are of the same nature with the former, and only differ in their power, is proved by an increased dose of them augmenting the discharge instead of suppressing it; and in the same way, a pretty large dose of alum is found to be a useful laxative in colic. They have always been condemned, as Mr Hunter observes, by those

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that wish to have the name of judicious practitioners; from their idea, that something is necessary to be carried off, to prevent the danger of constitutional infection: but though they have little effect on the inflamed state of the part, by lessening the quantity of matter, they are certainly useful; and in this way the inflammation frequently abates.

The remedies of this kind that have been most commonly applied, are the vi-
trials and lead. They have been frequently passed as specifics for this disease, and form the basis of most of the quack remedies at present employed for its cure.

LXXIII.

THESE, then, are the several means that execute this first division of the second mode of practice, by exciting a superior irritation to the morbid cause in the seat of the disease itself. In their use, they require much attention to the cautions laid down, and will only succeed properly in the hands of very skilful practitioners.

The last part of this plan, or the enumeration of those remedies the action of which depends on a similar irritation of contiguous parts with which the diseased spot sympathises, remains still to be detailed, and is more uncertain in its effect.

LXXIV.

To this principle we may refer a practice very much followed by Boerhaave, that of curing the disease by purging; not by the use of mild laxatives, but expressly, as he mentions, by drastics. This can be conceived to act in no other way; and, as a proof of it, we find, that while this practice continued, the violence of the irritation frequently occasioned swelling of the testicles, and other painful symptoms, that are the usual effects of powerful irritation. So much was Sydenham, before Boerhaave, prejudiced in its favour, as to advance, that the cure of gonorrhœa in this way was equally infallible as that of lues by the use of mercury.

This practice, however, though supported long by the disciples of Boerhaave, has now lost ground; as being very uncertain, independent of its mischievous effects, and as weakening the habit to no manner of purpose. The avoiding of costiveness is no doubt proper; but any evacuation by the intestines should in this case be carried no farther. These inconveniences of the Boerhaavian practice are well pointed out by Sir William Fordyce.

LXXV.

NEXT to this, as acting in the same manner, may be mentioned the cure of gonorrhœa, happening in consequence of the state of the glans penis, either from some morbid affection, or the application of remedies to it. Thus a gonorrhœa has been known to be removed by a chancre attended with phymosis, where much inflammation took place; and at present, in obstinate cases where injections fail, some practitioners very successfully employ the practice of rubbing mercurial ointment
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on the glans, which may be most probably referred to this head.

LXXVI.

To these remedies, before finishing the present plan of practice, may be added some others, which seem to answer both its views, in acting at the same time on the seat of the disease and also on the system at large.

Thus, from the attack of actual fever, such a general irritation is excited over the body, as well as in the part itself, as is incompatible with the action of any other morbid cause: and hence gonorrhœa is frequently, during this, removed, the virus being washed off during its inactive state; and a complete cure is thus effected, though sometimes it is liable to appear again after the termination of the disease; or, without being stopt in its operation by fever, it shows sometimes its symptoms of inflammation considerably increased, occasioning a cure by a quick decay of the disease.

On the same principle, the internal use of balsamics and mercurials in gonorrhœa may be explained. The former of these are well known to excite an inflammation in the urinary organs by any continuance of their use, and the most acute symptoms of inflammation we find at times to supervene; which has banished them almost entirely from practice, and rendered this mode of treatment very justly reprobated.

LXXVII.

THIS, then, comprehends the variety of practice which falls under the two first modes of treating the present disease, according to the enumeration formerly made. We proceed therefore to the last; which depends entirely on obviating inflammation by the common means of the antiphlogistic plan, and thus allowing the disease naturally to decay; while the views formed here in the application of it are,

1. To lessen increased action in the part.
And,

2. To

2 To sheath it against irritation.

LXXVIII.

THE first of these is performed by,

a. Bleeding; and it is most useful from the seat of the disease; but is seldom necessary, unless in some violent cases of cordee.

b. By fomentation of the part; though this is seldom of any use, unless where there is some external affection along with the disease. And,

c. By mild laxatives, possessing little or no irritation; and merely evacuating the intestines, so as to prevent accumulation.

LXXIX.

THE second view in this mode of treatment is, to sheath the part against irritation. And this is accomplished either by,

a. Applications to the part itself; or,

b. Altering the secretions that affect it.

Of the first are, the oleous and mucila-

ginous injections at present so much recommended; which, uniting with the matter formed, lessens the virulence of its action on the parts.

Of the second, again, we can only mention dilution, by means of thin watery liquids: for where the secretion is increased by diuretics, as they are all of an acrid or saline nature, though they occasion an increased flow, yet it is generally more stimulating than in its natural state; and hence the impropriety of that practice with nitrous powders so long in use. Nay, even dilution itself is perhaps improper, as the increased flow occasions an increased action of the organs; and it is the state of action in the part diseased which increases the violence of the symptoms.

LXXX.

THESE are all the different modes of practice that can be met with where the disease occurs in the male; and the principles of their action we have endeavoured to explain. But in proof that the disease will

will decay of itself, it is remarked by Mr Hunter,* that he has frequently cured it by bread pills.

Hence he concludes, though it is going a great deal too far, and which by no means can be allowed, that it is cured by all sorts of treatment, and frequently by none.

LXXXI.

WHEN the disease happens in the female, the treatment is much the same. Only, it must be observed, that it is generally here more obstinate; that it requires a more attentive use of remedies; and that even these remedies in injection may be employed considerably stronger here than to the urethra, the vagina both possessing less sensibility and the discharge from it being also more considerable, so as to weaken greatly the action of remedies, and lessen their effect. In the use of injections, it may also be remarked, that while the seat of infection in the male is near the extremity of the urethra, in the female,

female, on the contrary, from the circumstances of coition, it is placed pretty high up in the vagina; and the injection, therefore, must be carried a good deal farther.

LXXXII.

WITH respect to the management of the constitution during the progress of gonorrhœa, a subject much insisted on by authors, its treatment may be very shortly detailed: there is little need for much restriction; nor will the greater number of patients even comply with it. Those stimulants, however, which accelerate very much the circulation, as condiment of all kinds, or which seem to have a particular determination to these parts, exciting much action of the urinary organs, or increasing the acrimony of its discharge, should be cautiously avoided, as in some degree tending to retard the cure.

LXXXIII.

To conclude this part of our subject, it
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is to be observed, that in the treatment of patients under gonorrhœa, you cannot be too accurate in your directions. They have all themselves an idea of the simplicity of the disease; and are therefore liable to blame your remedies, when they are only themselves in fault by their improper manner of using them. On this account, it would perhaps be of service, that every practitioner should form a set of general printed directions, suited to the plan of treatment he employs, and to which his patients may refer. An attempt of this kind we have offered in the following, adapted to the first mode of practice (detailed LVII. to LIX.), which we prefer.

1. GONORRHOEA is a local disease, and only to be cured properly and safely by applications to the diseased part itself, the chief of which are injections; and in the choice of their form much judgment is required.

2. Let the injection (in the form we employ it) be used every hour, if the running
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is considerable; if not, three or four times a-day will be sufficient; and, when used, let it be carefully retained each time for at least half a minute, by compressing the glans penis round the point of the syringe.

3. The time most proper for the application of the injection is immediately after the discharge of urine, if left to choice, as the surface of the urethra is then most susceptible of its action.

4. Every injection, from the natural sensibility of the seat of the disease, and more so when in this morbid state, must communicate some slight degree of pain in its application. The time this continues after its removal will determine whether the injection is too strong: for a certain degree of pain is necessary to the cure; and, as the medium of the remedy (according to our form) is an oily or mucilaginous fluid, in diluting it, when necessary, the patient must attend that a fluid of the same kind is to be chosen.

5. Costiveness should always be avoided,

ed, as increasing irritation in the neighbouring parts, and thus influencing the seat of the disease; but, at the same time, no considerable looseness should be produced, as having a similar effect, and even endangering swelling of the testicles.

6. Let the acrimony of the urine, if naturally secreting little, and seldom voiding it, be blunted by the use of gum arabic; but an additional flow, by diluents, is never to be encouraged, as being necessarily attended with an increased action of the parts secreting it, which sympathise with the seat of the disease.

7. With regard to the management of the constitution.—In diet, little restriction is necessary: let, however, excess in drink be cautiously avoided; and especially of those liquors which have a tendency either to quicken the general circulation, or to act particularly on the organs of urine.

8. In every gonorrhœa, however slight, as the inflammation of all dependent parts
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is increased by their situation, suspension should be early and constantly employed.

9. By attention to the above rules, the cure of gonorrhœa may generally be completed, at a medium, in eight or ten days.

CONSE-

CONSEQUENCES
OF
GONORRHOEA.

LXXXIV.

AFTER gonorrhœa, we are naturally led to examine that state of the contiguous parts induced by it, either as arising during its progress, or as succeeding the termination of the disease.

LXXXV.

I. SWELLED TESTICLE.

The first of these, where the disease is violent, and the inflammation, instead of being confined to the surface, extends deeper into the urethra, and occasions an irritation of its higher parts affecting the mouths of the vesiculæ seminales, is a swelling

ling of one or both testicles, termed by authors a Hernia Humoralis.

LXXXVI.

THIS general term of Hernia has been applied by writers to all the swellings of these parts; and the addition of Humoralis, it may be supposed, has been intended to express the origin of the swelling as arising from the increased impulse of fluids producing distention, and not from the protrusion of any solid part. Nay, to avoid even the danger of mistake, though it was hardly necessary, they have gone so far as to give us diagnostics of the disease; which are drawn from,

1. The previous affection of the urethra. And,
2. The appearance of the swelling itself, which always retains the figure of the testicle.

LXXXVII.

THE first symptom of this disease is marked by an increased pain of the urethra,

thra, proceeding in a direction towards the vesiculæ feminales, and succeeded by a degree of swelling in the vas deferens, which soon communicates to the epididymis. This swelling generally begins with, or is preceded by, a suppression of the gonorrhœal discharge. At times, however, the running is little affected by it, or not till some time in the course of the disease. From the epididymis, the swelling is next conveyed to the testicle itself; and this swelling, at first soft and pulpy, becomes at last hard and painful, extending along the spermatic chord, and occasioning a painful sensation of the groin, &c.—Symptoms of uneasiness in other parts also arise; as pain of the small of the back, weakness of loins, cholic, nausea, sickness, &c. and an obstinate strangury often attends.

LXXXVII.

THIS swelling is found most frequently to attack only one testicle. Sometimes, however, it attacks both; or on leaving

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the one, where the irritation of the urethra continues, and of course the disease is not subdued, it affects the other. Authors have disputed which of the testicles is most frequently the subject of it. The right one has been insisted on; and some reasons may be given from anatomy for this preference.

LXXXIX.

THE opinions of authors with respect to the nature of this complaint have been various; and from considering gonorrhœa as induced by the action of the specific virus, they were of course led to imagine, that the same specific action was likewise exerted here. In this the early writers were particularly confirmed from the circumstance of their belief in the gonorrhœal discharge being feminal; which being generally suppressed on the attack of this complaint, the retention of it in the testicle in a vitiated state came to be ascribed as its cause.—But this opinion of the gonorrhœal discharge being feminal coming to be exploded,

exploded, the theory of translation was next introduced, and the deposition of the virus on the testicle itself universally admitted. This was the doctrine strongly inculcated by Astruc; and the system of morbid matter then prevailing occasioned its being long received. The manner, however, in which this translation was to be explained, raised difficulties; and on a more intimate acquaintance with the course of the lymphatics, it was found there were none that could possibly convey the virus to this part without its first entering the habit. In order, therefore, to account for this translation, the passage of the virus into the circulation was believed, and that from it it was deposited here as on a secreting gland. But wherever the virus is once admitted into the circulation, a constitutional taint, or complete lues, must be produced; and in all cases of general infection, we find no particular determination, except in some very rare instances, ever occur to the testicle. Besides, even from the symptoms of the disease, this

opinion is overturned; for, admitting it, the swelling should in this case first begin in the testicle, and from thence be conveyed to the epididymis. But the reverse of this is observed to take place; for the swelling is first in the vas deferens, extending next to the epididymis, and last of all to the testicle and spermatic chord. The swelling is also of a particular nature. It is at first soft and pulpy, and only acquires a degree of hardness, tension, and pain, from the stimulus of its own distention; and hence Dr Swediauer remarks, that it never becomes so for five or six days, till the testicle is to a certain degree distended, and the pain attending it is more of that thickening heavy kind which marks distension. To account, then, for this affection, sympathy came at last to be introduced; and this was rendered the more probable from observation of the effects of simple irritating applications to the higher parts of the urethra. This swelling of the testicle has been known frequently to succeed the operation of lithotomy. The
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same has been remarked to succeed the too rude application of a bougie; and hence simple irritation is alone sufficient for this effect. But even in admitting this simple irritation as sufficient, practitioners have still been fond of the theory of translation; and the passage of the virus higher up into the urethra has been mentioned as occasioning it. But what necessity is there for this supposed translation? What evidence have we of it? The venereal virus, we contend, never leaves its original seat when once deposited in the urethra, except ulceration occur; and these symptoms of irritation arising are merely an effect of the increase of inflammation in that part to which it is originally applied, communicated from thence by sympathy to the higher parts of the urethra; for the action of the venereal virus we find always circumscribed: hence it is particular spots of the urethra, as we may judge from symptoms, it affects. Besides, the virus could only be conveyed to the higher parts, every author must allow, by absorption. The absorbents near

the seat of the disease are the only ones that could in this case act; and if they did, their direction is not towards the surface of the higher parts of the urethra, but more internally towards the groin, as we know by the occurrence of bubo, wherever a lesion of surface as an accidental consequence of gonorrhœa takes place. Nay, were the virus acting in a specific manner on the higher parts of the urethra, from the violence of symptoms which attends this affection, and from the characteristic of its operation in all cases to form matter, as these parts are incapable naturally of secreting a matter to blunt its action, two things must necessarily happen.

1. The production of ulceration introducing pox; but constitutional symptoms do not succeed hernia humoralis. And,

2. As the consequence of the former, incurable sore or gleet should supervene: but during its action, we find generally the discharge wholly suppressed; or, if returning,

ing, it discovers no symptoms marking ulceration.

XC.

THE circumstances increasing the inflammation of the urethra, and proving therefore the causes of the present complaint, are,

1. Any cold application to the part; as exposure to cold air, washing with cold water, &c.

2. Acrid astringent injections: and in this way only can astringents prove hurtful, by increasing inflammation; not by locking up *matter*, according to common opinion.

3. Excessive purging: and hence this complaint was formerly more frequent when the use of these remedies was in repute for the cure of gonorrhœa. And,

4. Excess of venery, or any violent exercise affecting these parts, as riding on horseback, &c.

XCI.

THE duration of this disease is various ; depending much on the irritability of the patient, and whether previously subject to this affection. There is always then danger of its returning in succeeding gonorrhoea ; and from the state of the part induced by it, or that tendency to altered organization, the effect of all inflammation, it is more difficult to remove. In some, however, the disease terminates in a few days ; while, in others, it will continue for the space of a month before any sensible diminution of its bulk is perceived.

XCII.

THE termination of this disease is for the most part in resolution, and suppuration does not take place in one of a thousand cases. It is even denied by some authors as ever happening, except it arises from a constitutional taint, an affection very rarely met with. This termination, however,

however, sometimes occurs when it passes into the chronic state.

XCIII.

BUT though this termination by resolution takes place from the complex structure of the affected part, peculiar circumstances frequently attend it which require attention. These are,

1. A general hardness of the testicle to a certain degree, which always remains, and from certain causes frequently degenerates into scirrhus; for previous inflammation of the testicle, from the peculiar structure of the part, gives always a predisposition to this.

2. The same state of the epididymis; with this remarkable circumstance, that it frequently in time shrivels away entirely, and that without any hurtful effect; for in these cases they retain the same venereal powers and inclinations as other men.

XCIV.

FROM this general hardness of the testicle,

ticle, even where no scirrhus occurs, a degree of distention of the spermatic chord is often observable; and hence the actual state of scirrhus of the part may be supposed when no such affection has yet taken place.

XCV.

IN forming a prognosis of hernia humoralis, we are to judge of it by its being more or less easily subdued, as marked by a diminution of its size, with the departure of pain, and return of the former discharge generally in increased quantity. But where, with the abatement of pain, there is no alteration in its size, and the running, if returning, is but trifling, then there is danger, by its continuance, of its termination in scirrhus.

XCVI.

HAVING endeavoured to establish the nature of this affection, we next proceed to examine its treatment: and for this purpose, four indications present; the two former

former of which are adapted to its acute, the latter to its chronic state.

XCVII.

THE first and primary one is, to diminish the power of irritation in the affected part by,

1. Producing insensibility to its action.
And,

2. Lessening the increased force of the general circulation.

XCVIII.

THE first of these is to be entirely effected by the use of opiates: and from the previous account of the disease, its propriety will appear; though we are chiefly indebted to Dr Swediauer for being the first who insisted on its utility, and by the success of his practice proved its efficacy. It was indeed formerly taken notice of by Dr Chapman; who remarks, that he has known the disease subside by opiates, after bleeding, fomenting, and poultices had no effect. There is little doubt that most practitioners have employed them, though
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it has been only in this disease with the simple intention of obviating pain: but they are here more generally indicated, as confirmed by Dr Swediauer's practice; and in every local disease, the effect of simple irritation, they cannot be too liberally employed. They are most properly given in glyster, and that in a full dose at once; repeated at the distance of 12 hours, or oftener, as indicated by the continuance of irritation and the violence of pain. For in all cases of fixed irritation of a part, remedies applied to the body have then less effect than usual, the whole nervous system sympathizing in a high degree with the affected part, which renders a more powerful exhibition of them in these situations necessary.

XCIX.

THE increased force of the general circulation, the second part of the present indication, is diminished by,

1. General blood-letting.
2. Attention to posture. And,
3. Simply

3. Simply removing accumulations of the rectum.

C.

THE first of these, unless the fever is considerable, that is, as Dr Swediauer expresses it, unless the pulse be accelerated, full, and strong, is never to be had recourse to; and even then, we must be determined by the constitution of the patient. If attentive early to the disease, a degree of increased action will almost never occur; as it only comes on after the actual state of inflammation in the testicle has for some time taken place, and is never, from the repeated observations of authors, any part of the original disease. Yet wherever blood-letting is in these cases employed, it should be done very largely; for in all diseases of particular organs possessing much sensibility, the common antiphlogistic plan we find too slow in its operation to have much effect.

CI.

CI.

THE second means of preventing the increase of swelling, or a horizontal posture, should be strictly recommended from the particular dependent situation of the affected part. This attention to posture, in most acute diseases, is of importance; as both suspending the action of muscles which influence the circulation of parts, and in the present case it in some degree breaks also the force from the quantity which is increased by an upright posture. Hence the most certain relief is experienced from it, and the uneasiness by its weight communicating pain to the higher parts rendered less extensive: for even suspension, though somewhat alleviating pain, is here not sufficient; and a horizontal posture should never on any account be dispensed with.

CII.

THE removal of costiveness deserves likewise to be attended to, as somewhat

answering the present intention; but more particularly as allowing the effect of opiates applied to this situation to be more powerful.

CIII.

THIS, then, forms the first indication in the cure of the present affection; and the second consists in either,

1. Lessening as quickly as possible the accumulated load in the part itself; or,
2. Rendering the latter capable of supporting the distention.

CIV.

THE first of these is performed by topical venesection; and for this purpose, leeches should be applied in a number proportioned to the state of the disease and violence of the inflammation. They should be applied at that time when the opiate is beginning to have effect, or to exert its sedative power; and by removing the accumulation at this time, the disease, without any necessity for a repetition of remedies, will frequently be subdued. From some degree

degree of irritation, however, attending the use of leeches, and the particular nature of the inflammation itself (described LXXXVI.), many have laid little stress on their application; and the rendering the part capable of supporting the distension by relaxation has been preferred. The relaxing application which we find most effectual, is warm steams received on the part frequently, and continued for half an hour or three quarters at a time; the patient being placed with this view on a perforated chair or any other convenience, and the testicles previously suspended. This is certainly the most active state which the combination of heat and moisture can receive; and, where it can be had, is an application to be preferred for this purpose both to fomentation and poultice; though, after the former, a poultice may be applied, which will increase its effect.

CV.

IN the progress of this complaint, the constitutional management requires, perhaps,

haps, more strictness than in almost any other disease. The antiphlogistic plan is to be most rigidly persevered in; and every thing that can in the least tend to excite the action of these parts cautiously avoided.

CVI.

By these two indications, pointed out XCVII. CIII. the disease in its acute state, as observed XCVI. comes to be removed; but from the enlarged size of the testicle frequently remaining, its altered organization giving a predisposition to scirrhus, or this last having actually commenced, two others arise, which differ from the former, and are directed to obviate its consequences in the part. As these consequences consist in its hardness and swelling, the third indication formed is, to attempt its discussion, either,

1. By subduing any remains of irritation continuing the former state, and increasing the morbid action of the vessels of the part. Or,

I

2. By

2. By exciting the powers of the organ diseased, so as to produce a tendency to acute inflammation, or even this last state; and thus to remove the effects of the altered organization.

CVII.

FOR inflammation is a process on which most changes in the structure of parts depend, and which possesses very opposite effects according to the different state of the parts in which it appears. In healthy parts, it evidently induces disease; and in the same parts, again, under disease, when excited in certain degrees suited to the state of the parts, on which its success depends, it either again restores the healthy state, or alters so far the texture of the part as at least to remove the present affection for which it is applied.

CVIII.

THE first division of this third indication, then, is effected by the liberal use of sedatives, which are chiefly opium and
cicuta;

cicuta ; and in this case they are pointed out by the swelling discovering much pain or occurring in an irritable habit. Some authors have supposed, that the latter of these, the cicuta, possesses a specific action on these parts, from the success attending its use ; and which is not so frequent in its application to scirrhi elsewhere. It should be used in every form, both topically as well as internally ; and till given in considerable quantities, it possesses generally little effect. It is more suited to those in whom the disease retains still something of its acute nature, and where the altered organization of the gland is not far advanced. The first to whom we are indebted for the long list of sedatives introduced into practice in the cure of such glandular affections, was Dr Storck. With him they certainly had a success which future experience has not always confirmed ; and as we cannot doubt Dr Storck's authority, it must therefore have depended on that nice discrimination of circumstances indicating their application,

and which an accurate observer naturally acquires; as the stage of the disease at which they are applied, the habit in which it occurs, and the height likewise to which their doses are carried.

CVIII.

THE second division of this third indication, in which we attempt overcoming the scirrhus state by exciting in its vessels an increased action, is more difficult to perform; and its propriety is pointed out in those particular cases where an indolence in the swelling and absence of pain chiefly prevail. It is performed by the use of mercury, mezereon, and other acrid substances of a very penetrating nature. The mercury, however, is generally with this view preferred; and as the cases occurring in practice are more commonly of a mixt nature, it is usual to combine it with remedies of the former class, particularly the cicuta. Where it is effectual, it very frequently induces suppuration; and this is always a termination in these cases
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to be promoted where there appears the smallest tendency to it. The mezereon has of late been much recommended, and is to be used in this case both internally and topically. Its best form is the decoction; though it is very apt to nauseate, and of course soon disgust the patient.

In perusing the different periodical publications, a number of different substances are mentioned as successful in particular situations of the present disease. Their action may be readily explained on the principles laid down; and for the particulars of their success, we refer to the publications themselves.

CX.

BUT where this third indication, as sometimes happens, is altogether ineffectual for producing an alteration of the disease, we next consider what farther resource is in our power for its removal, or how far exciting a superior irritation to that in the seat of the disease, in a part with which it sympathises, may be attend-

ed with advantage; and this forms the fourth indication for its cure.

CXI.

FROM the general consent of the stomach with every part, the use of vomits on this principle has been experienced often successful, and in the acute stage of the disease operate frequently like a charm. The vomit here preferred has been commonly two or three grains of turbith mineral; not that it possesses any specific effect, but from the violence of its action its success here has been more considerable.

CXII.

NEXT to the stomach, from its connection with the testicle, and from its state being originally the cause of the present disease, an irritation of the urethra inducing a discharge has been had recourse to. The methods of exciting this are various.

1. By receiving a new infection, or virulent gonorrhœa.
2. By the introduction of a common bougie;

bougie; continuing it till it produces an irritation attended with a copious discharge.

Or,

3. What is reckoned preferable to either of the former is, the introduction of a bougie stained with venereal matter; and this practice has of late been often tried in the military hospitals in Germany. It is a mode of practice, however, to which very few will be fond of submitting in this country; and is only authorised in desperate cases, where there is no alternative but the use of the scalpel. Dr Swediauer mentions no less than four instances of its success in his own practice; and where, no doubt, the urgency of the cases rendered it sufficiently excusable. For its success, however, much depends on the state of the testicle, or the height to which the disease has arrived. Its propriety is pointed out by its analogy with an issue, where a deposition on a particular part is prevented by soliciting a proper quantity of discharge from a neighbouring part.

CXIII.

THE method of inoculation by the bougie, as it is termed, is this: It consists in introducing into the diseased urethra of a patient under gonorrhœa a common bougie, and retaining it there till it is well imbued with the gonorrhœal matter. This being applied to the surface of a clean urethra, is to be kept there for four or six hours, till the symptoms of increasing pain display its effect in producing the disease. If the symptoms of the testicle, then, do not remit, and those of the gonorrhœa are mild, and the discharge but small, a new inoculation is to be made in the same manner as formerly, and even repeated if necessary; taking care, however, that its seat be near the extremity of the glans. This mode of practice is very much trusted to; and directions have been even given, where no recent gonorrhœal matter is to be had, for drying it on a bougie, so as to be at any time fit for use.

CXIV.

CXIV.

BUT when the scirrhus resists all those methods of practice detailed, which will sometimes occur, though more rarely, and when of course there is danger of its extending to the spermatic chord, and terminating soon in cancer, the only prospect of cure that is then afforded is by the extirpation of the testicle. It may be remarked, however, that though part of the gland is in a state of scirrhus, the rest is often free from disease. If the scirrhus part, therefore, is not much connected with the secretion, or does not materially prevent it, the function of the organ will continue to go on, and the scirrhus part remain entirely indolent. This we find to be frequently the case, as formerly observed with the epididymis.

CXV.

CXV.

II. GLEET.

When the discharge of gonorrhœa continues in both sexes after the active symptoms of the disease are removed, attended with a particular weakness not felt during its former state; or when a discharge similar to that observed in gonorrhœa makes its appearance some time after the total departure of the previous affection; the disease then receives the appellation of Gleet, and differs from the former both in its nature and causes. Hence it is always to be considered as the effect of former venereal excesses, and has its virulence increased by whatever accelerates the general circulation.

CXVI.

No venereal affection is perhaps so obstinate in its cure as gleet; and it will often depart of itself after every method has been ineffectually employed. In attempting its cure, however, much depends on an accurate knowledge of the several causes
from

from which it arises; and these may be reduced to the three heads of,

1. Stricture in some part of the passage.

2. Ulceration. Or,

3. Simple relaxation of the mucous glands conveying the former discharge.

CXVII.

STRICTURE is perhaps the most frequent cause of gleet. It is the effect of previous inflammation during the progress of gonorrhœa; and consists in,

1. A thickening of the urethra at a particular part.

2. An excrescence from its surface. Or,

3. A swelling of the prostate or some of the neighbouring glandular parts.

By the existence of either of these, an irritation in the urethra is kept up, which occasions the continuance of the discharge established by habit; or this discharge is excited, when the urethra is in such a state, by any excess giving to the urine an unusual stimulus, and increasing the circulation

tion of the part. Hence it generally appears after much drinking, venery, and other irregularities; and is generally experienced worst during the continuance of cold weather.

CXVIII.

THE first species of stricture, or a thickening of some portion of the spongy substance of the urethra, is the most frequent source of this complaint. It depends on an extravasation of lymph into the reticular membrane during the violence of co-dee, and is particularly marked by frequent erections in the night, when a sense of tension and resistance is felt at a particular part, as the distensibility of the penis is here somewhat destroyed. The introduction of a small bougie, by being somewhat stopt in its progress at this part, will likewise detect it. This complaint generally increases in proportion to the frequency of erection, as it yields in some degree to the force of the fluid distending the penis.

CXIX.

CXIX.

THE second species of stricture, arising from an excrescence or callosity in the passage, is less common. It is even denied by some surgeons of the first authority as ever existing; and we should therefore be inclined to suppose, that it had first been the suggestion of theory, to which time had given a sanction as a matter of fact. Mr Daran, the most successful practitioner that ever attempted the cure of the present disease, has been fond of magnifying the difficulties he had to encounter; and, on that account, has laboured much to establish its frequent occurrence. That warts may arise in the surface of the urethra, as well as on the prepuce and glans, is probable: but we would allege, that they are very rare; and even practitioners of the first reputation in this line have never met with above a single case of the disease.

Callosities, again, or scars from former ulceration, are still less frequent; as even those who allege that ulcers, in every case
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of gonorrhœa, exist, have found it difficult to trace their remains. Authors, therefore, have been too much led by theory, and supposed they met with these difficulties when no such actually occurred.

CXX.

THE last species of stricture mentioned, is the swelling of the prostate, verumontanum, or some of the neighbouring glandular parts. This swelling is the effect of previous inflammation from gonorrhœa, communicated here by sympathy; and such sympathetic swellings have this peculiarity, that they possess a natural tendency, where the irritation is long continued, to depart by scirrhus. The swelling of the prostate gland is chiefly known by the catheter meeting no resistance till it arrive at the neck of the bladder; and by the introduction of the finger into the anus this swelling may even be felt. It appears from dissection a more frequent cause of this complaint than is generally imagined; and is, at the same time, more frequently

a scrophulous affection than from a specific cause. It is always to be considered as dangerous; though it is surprising we should find Mr Daran considering this, and all scirrhus swellings of these parts, as so trifling, and as yielding so readily to his modes of practice, when they appear so obstinate in other parts; and we must therefore conclude, that Mr Daran must have frequently mistaken the cause of this disease. Nay, the facility with which you find him in every instance ascertain it, which every other practitioner has allowed to be often a matter of considerable difficulty, leads us to such a conclusion.

Where the verumontanum is enlarged, it is only to be known by pain attending the emission of semen.

CXXI.

FROM stricture, we come to consider the second cause of gleet enumerated, or ulceration. And it must be observed, that though it was refused as in any case proper to simple gonorrhœa, or such as occurs
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in nine hundred and ninety out of a thousand cases in practice, and, even when happening, essentially altering the nature of this affection; yet it is properly admitted here as a cause of gleet. Many authors have indeed denied the existence of ulceration here, though it is supported by several respectable anatomists; and Fordyce expressly tells us, that he has seen internal chancre, for so he terms it, frequently keep up the discharge of gleet. Wherever it occurs, it is a sign of infection being communicated to the habit, and constitutional symptoms may be expected to supervene. The particular seat of these ulcerations cannot be determined by the appearance of symptoms; and such ulcerations will seldom yield to general remedies, as the flow of urine keeps up a constant secretion of matter from their surface. The signs of such a state of the urethra are,

1. Streaks of blood tinging the matter discharged.
2. Real blood passed. Or,
3. Acute pain confined to one particular spot;

spot; and felt most sharply on pressure, the introduction of the catheter, or on the emission of urine.

- But a question here naturally presents; Whether such ulcerations are ever without stricture; or whether perhaps they arise only as an effect of it? That they do frequently arise as an effect of it, is certain; but that they may exist independent of stricture, we have every reason for alleging, and especially in irritable habits, where a breach of solid easily takes place.

CXXII.

THE last cause of gleet, or simple relaxation of the mucous glands, is perhaps the least frequent of any; and it has been even asserted by many as never happening; for the discharge, they are of opinion, without the presence of some source of irritation, cannot be continued. From what is observed, however, in the case of the bronchial glands, which a long time after the departure of catarrh continue to discharge a preternatural quantity of their secretion,

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it does certainly take place; for in every part from which an active discharge has proceeded, a disposition is still retained to continue it after the removal of the cause. Hence the tendency which all hemorrhagies possess to return; and its true nature, therefore, is only to be known here from,

1. The appearance of the symptoms being milder than those of the original gonorrhœa. And,

2. There being no chance of a new infection.

CXXIII.

FROM the view offered of the several causes of this disease, its treatment will appear to admit of considerable variety. It proceeds, however, on three general principles; and these are,

1. When arising from stricture, either by dilatation or suppuration.

2. When from ulceration, by suppuration alone. And,

3. When from relaxation of the mucous glands, by exciting to a certain degree adhefive

heſive inflammation, or that ſpecies by which an alteration in the future functions of theſe glands is produced, preventing their farther ſecretion of mucus.

CXXIV.

BUT from whatever cauſe this affection ariſe, it is perhaps the moſt difficult to remove of any that falls under the notice of the phyſician. Even rules will not apply to it; and its cure is often ſo whimſical, that what will remove it in one, will perhaps in the ſame ſituation, as far as we can judge, increaſe it in another. It is attacked, however, in two ways; either conſtitutionally, or locally. The latter of theſe, however, is preferable, and ſhould always be conjoined with the former. We ſhall therefore conſider the local method of cure firſt; which is performed either by a direct application to the part itſelf, or to a neighbouring part connected with it.

CXXV.

THE applications to the part itſelf poſ-

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sees either a solid or fluid form. The first of these are what are termed Bougies, the management of which is perhaps the nicest operation in surgery; and till the time of Mr Daran, who was the first that brought them to perfection, disorders of the urethra were very little understood, and considered among the opprobria of our art.

CXXVI.

THE principle on which bougies are formed, is their possession of a certain degree of pliancy to adapt them to the part; and a certain degree of irritation, when applied there, to alter its state. Hence they are of two kinds; the former of which act by simple dilatation, the latter by an irritation also on the part inducing suppuration. This was the idea formed of them by Mr Daran, as we learn by the publication of his original receipts for their composition. Modern surgeons, however, have supposed, that the materials of their composition are a matter of little importance; and

and that the whole depends on their form, size, and consistence. Thus Sharp seems to prefer mercury for their composition; while Goulard, on the contrary, employs his favourite remedy lead; and as they are equally successful with these different compositions, we naturally infer, that it is more the mechanical nature of the bougie than the composition that gives it effect.

CXXVII.

BEFORE the time of Mr Daran, the common applications for this purpose were leaden canulæ; which not only gave considerable irritation, but by their want of pliancy produced very troublesome effects, and by no means answered the purpose for which they were intended. They were besides loaded with different applications of a caustic or corrosive nature, which produced large suppurations in the substance of the urethra, ending often in incurable fistulæ.

CXXVIII.

THE simple action of bougies, then, is to be considered as that of a wedge; and their success in this way depends on two circumstances. Either,

1. Their conveying such an irritation as, independent of the resistance from their size alone, may excite suppuration in the stricture; which yields more readily to its action than the contiguous surface, as the glands here pour out their mucus to lessen the irritation. Or,

2. Their size producing such a dilation as, exciting the animal powers, occasions absorption from the stricture, in the same way as warts of the prepuce shrivel by exciting inflammation in the contiguous parts.

CXXIX.

IN the use of bougies, to ensure their success, a great deal depends on the abilities of the practitioner; and it was only from a constant attention to this subject,
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that Mr Daran acquired in it such merit, his frequent opportunities giving him a facility in their application which is only to be gained by constant practice. The circumstances, however, on which a superior skill in their management would seem to depend, are,

1. In attending to the time of their introduction; which should be immediately after making water, as the urethra is then in a relaxed state, for its fibres possess a considerable power of contraction. And in order therefore to obviate this, where the introduction of a bougie is rendered difficult, it may be proposed to inject into the urethra a solution of opium some time before, and attempt it when the atonic state commences: for we find it often impossible to introduce any but the smallest bougie into that very urethra which at other times admits a very large one; a strong proof of its contractile power.

2. In the manner of passing them; which should be done slowly, or by gradual advances, if, stopping near the glans, it may

have got into some of the lacunæ which form the seat of gonorrhœa: and this is even more liable to happen when the bougie is small; and in this case its direction must be changed to avoid them. In entering it, it frequently meets with resistance at first; but, by persevering for some time, it comes to advance. This happens from the passage not being always in the line of the urethra; for in this a great difference prevails in different subjects, and it is frequently altered from its original state by disease. It is often difficult to say whether it has really entered at first, or is only bending. If it does not recoil, it has entered, though this may sometimes be not above one-tenth of an inch. Mr Daran gives us many cases of this kind, and mentions the necessity for patience; as they come gradually every day to penetrate farther, till a perfect cure has been at last completed. From the difference in the size of the urethra at the place of the stricture, it often, when it gets into it, is grasped there, and the end on its removal appears

appears compressed for as far as it has entered; and by the length of this you may know how far it has passed into the stricture.

3. In the frequency of their introduction, which should be as often as the patient can bear. And to this Mr Daran paid particular attention; introducing them at least three or four times every day, and confining the patient strictly during their introduction to a recumbent posture.

4. In the adapting their size to the urethra of the patient, and gradually enlarging them according to the progress of the cure. This requires particular regard; and we would maintain, that you cannot begin with one too small, especially where they require to be used, as they commonly do, for a considerable time. It is also very necessary from the contractile power of the urethra, which is incapable of bearing an irritation of this kind resisting its contractility till somewhat habituated to its application.

CXXX.

ALL bougies should at first be somewhat of an irritating kind, which is recommended by Mr Daran ; for as the diameter of the urethra is most contracted at the seat of the stricture, the irritation of the bougie, if small, will be chiefly against that part : and as soon as a degree of suppuration is induced, the bougie is then to be changed for one that acts merely by simple dilatation ; the use of which will produce little farther irritation than what arises from its size distending the cavity of the urethra. As much depends on the pliancy of bougies, perhaps the best sort in this last case would be those formed from the elastic resin.

CXXXI.

PREVIOUS to the use of any bougie, it should be oiled ; and, before introducing it, the surgeon, grasping the glans penis, should gently extend the member, that the urethra may be made straight, and the
bougie

bougie meet by this means no impediment to its entrance. It should always pass an inch beyond the stricture if possible, but no farther, from its acting as an extraneous body against the sound surface of the urethra; and there should be at least an inch of it remaining to bend on the glans.

CXXXII.

IN passing a bougie, we are determined in its extent by the situation of the stricture. If it is near the glans, it should be passed but a small way. When, again, it is about the bulb, which is more commonly the case, the size of the bougie should be larger than otherwise, to supply the necessary pressure. If in the bend of the urethra, or near the bladder, its flexibility should be proportionally increased.

CXXXIII.

WHEN first using a bougie, the degree of pain will determine the time of its application, or how long it is to be continued at once. In some, it cannot be left remaining

maining above half an hour at a time; in others, it may be continued for six, seven, or more hours on a stretch. There is in this respect the greatest variety, and we can only be determined by circumstances; tho' the longer it is retained, the sooner will the cure be completed; and wherever the smallest bougie will pass, a cure may be depended on and generally ensured. A bougie should never be passed in the night-time, as symptoms of irritation, consisting in frequent erections, cordee, &c. are then most liable to come on; and the distention of the urethra always forms a resistance to its action.

CXXXIV.

THE time necessary for the cure of stricture by bougies must be very various, and influenced by the particular circumstances of its nature and situation. After its use, however, for a few weeks, the symptoms begin to abate; though a discharge always continues during the whole time the bougie is employed, and it is only by discontinuing

continuing it for some days we can judge of the departure of the disease. Where there are several strictures, which is often the case, we generally know it during the use of the bougie, as it passes more quickly after it gets over each; and we can thus count their number. But wherever, during the progress of the cure, painful symptoms occur, the bougie should be discontinued for a few days; and then, as symptoms abate, had recourse to anew. During its use, also, the colour of the discharge is altered, and acquires the same appearance as during the active state of gonorrhœa.

CXXXV.

WITH respect to the composition of bougies, it may be made very simple. Many receipts are given. What Mr Hunter seems to prefer, is simply wax, oil, and litharge; and bits of rag being dipt in this composition when hot, and afterwards smoothed with a spatula before receiving their form, will answer all purposes.

poses. Mr Sharp, as formerly observed, has preferred introducing into them a quantity of quicksilver, which he imagines gives them a superior advantage. On what principle it proceeds we cannot determine; while the extinguishing the quicksilver is attended with a good deal of difficulty, and generally separates from the composition on the pressure being applied to form them. That they tend more from this addition to induce suppuration, may from his own observations be refuted; for he remarks, that he has often used several of the saline preparations and precipitates blended in this way with plaster, and found that they always lost their corrosive nature, and became hereby inert. But where we wish them to produce irritation, it may be proper, as Mr Hunter recommends, to introduce sometimes into their composition turpentine, camphor, &c.

CXXXVI.

IN the formation of bougies, the great art consists in giving them a smoothness of
1 surface,

surface, and retaining them of a uniform thickness in every part.

CXXXVII.

WITH attention to these several rules delivered on the use of the bougie, the chief secret for their success, it may be observed, consists also in attention to the patient. Too much indeed cannot be paid. It was to this entirely Mr Daran owed his reputation. He made it his principal employment; and the patient either lived with him, or he attended him so closely as to direct every the most minute circumstance concerning him. Along with this, too, as his attempts were made in such a judicious manner from long experience, his practice, if the disease was curable, could not fail; for whoever takes in hand the management of complaints of the urethra, must lay it down as a rule to be a slave to it.

CXXXVIII.

It must be remarked, that the bougie does not always effect an entire cure, or at least

least that the parts, from their natural disposition to contract, resume often their morbid state in some time after its discontinuance. On this account, it should still be used at times in such patients after the apparent removal of the disease.

CXXXIX.

BUT, when arising from stricture, as the cure of gleet by this gradual method is slow, its quicker removal has been attempted either by,

1. A more forcible action of the bougie itself than hitherto recommended. Or,
2. The application of caustic to the seat of the disease.

CXL.

WHERE the bougie is employed in this way, it should be introduced as tight as possible; and therefore a large one must be used, and shifted very often, so as to overcome the resistance by inducing a speedy suppuration in it. But in this way there is often mischief done, and a new
passage

passage formed, attended with very dangerous consequences. It is not, however, the fault of the instrument, but of the operator; who should be able soon to detect this, and prevent its progress. In order to do this, it is necessary to pay great attention to the progress of the disease; and if there is no alteration of the original symptoms while the bougie is making progress, a new passage is certainly forming.

CXLI.

THE application of caustic requires a very nice management in previously ascertaining exactly the seat of the disease. It was first employed in this case with success by a very ingenious surgeon in London, and by him directed to be passed through a canula made for that purpose. It should always be had recourse to wherever a bougie cannot be passed; and there are few cases, if properly employed, which it will not cure. If the stricture is in the straight part of the urethra, it is easily applied; if, however, it is beyond this, it is somewhat

L . difficult,

difficult, and requires the canula to be bent in order to its application. The caustic should generally remain, when introduced, for at least five minutes on the part; and after its application, the patient should, if possible, immediately make water, or some fluid should be injected into the urethra to wash it off. As it is here of material consequence to avoid pain, we would advise, that before the use of the caustic a solution of opium should be injected into the urethra, which will likewise facilitate the introduction of the canula; and that the caustic should be also mixt with extract of opium instead of soap. Three or four applications of it will commonly succeed; and it should be applied, if possible, every day, or at the very farthest every other day.

CXLII.

STRICTURES in women are not so common as those in men. Where they do occur, they are to be removed in the same manner as those in the other sex. They
are

are generally easier, from the shortness of the urethra; and when the bougie is employed, in order to retain it, the T-bandage is found necessary.

CXLIII.

FROM the imprudent use of bougies, as they are generally entrusted by the surgeon to patients themselves, accidents sometimes happen in consequence of their being introduced too far; so that they either slip into the bladder altogether, or get beyond the glans, and are fixed by the contractile power of the urethra. In the first case, there are many instances of their being retained, and forming a nucleus to calculi, afterwards discovered by the operation of lithotomy. In other cases, from the increased force of the bladder which takes place in stricture, they have been expelled in various folds, softened by their retention. Where a bougie is only an inch or two within the urethra, it may be brought out by applying one hand under the scrotum, so as to fix it there, and pushing down the

urethra with the other hand upon it. By repeated attempts in this way you will succeed; and if it is small and soft, so as to bend, the forceps may be pushed down upon it, used for extracting calculi from the urethra. But where, unluckily, it is so far advanced as to be in the bend of the urethra, this method cannot succeed; and it will be then necessary to cut upon it, or allow its passing into the bladder. To prevent, however, all such accidents, a soft cotton thread should be tied round the bougie and penis, so as to hinder its passage into the urethra.

CXLIV.

BUT from the use of bougies, especially when their forcible action in the destruction of stricture is employed, or even where in irritable habits no such force is attempted, morbid symptoms frequently arise in the system in general, as well as in the particular parts exposed to their action.

CXLV.

CXLV.

THE effects of their irritation on the system in general are, faintings, cold sweats, and even, though more rarely, temporary loss of senses. These symptoms, however, depart after two or three trials; and more commonly occur, where, from the long continuance of the stricture, the resistance is greater than usual.

CXLVI.

IN the urethra itself, the morbid symptoms depend either on,

1. Simple excess of irritation. Or,
2. Improper introduction of the bougie.

CXLVII.

IN the first case, swellings arise in the contiguous parts that sympathize with the disease, as in the groin, about the pelvis, and in the testicle. Strangury also is frequently induced from this cause. Such effects, however, are merely temporary, and re-

quire only for their removal a milder application of the remedy.

CXLVIII.

BUT from the improper introduction of the bougie, the most serious consequences, on the contrary, arise; for a new passage being formed prevents the cure of the original disease, and the continuance of the latter is always to be considered as dangerous. This passage is generally along the side of the natural one; and is formed in the spongy substance of the urethra, proceeding in a straight line towards the perinæum, and thence to the rectum. It may be formed equally on either side of the urethra; and when once made, there is no cure but by opening the parts externally. To do this, let a staff be passed into the urethra as far as possible; which will probably be at the bottom of the new passage, and beyond the stricture or seat of the disease. Let the end of the staff be then felt for externally, and cut upon by making an wound at least an inch long. If the new
passage

passage is between the urethra and body of the penis, you will get into the former before the new passage; and if this is the case, there will be no necessity for going farther, as a probe may be then passed, or a similar instrument, towards the glans; while the stricture lying in that direction, the probe will pass through it and remove the obstruction there.

CXLIX.

WE have thus considered the direct applications to the part, in cases of gleet, of a solid nature; and are next led to examine those of a fluid kind, which consist of injections of various composition.

CL.

THE application of the former, or the bougie, is more permanent in its effects: but it should only be used when injections fail; and unless there is evident stricture, it should not be introduced far, as it is liable by its irritation to induce a state of disease in parts not affected.

CLI.

THE injections of the present class proceed on the same principle formerly mentioned in directing the second indication of cure in gonorrhœa, by exciting in the part a superior irritation to that from the original disease. They require on that account to be here much stronger, as the parts habituated to irritation from the disease require a stronger stimulus to affect them. Thus even extract of Goulard, in the undiluted state, as Mr Hunter informs us, has been thrown in, and completed a cure; and the first effect of such remedies to be successful is the production of violent inflammation, which soon goes off. The degree of strength they require, we are to judge of from the duration of the disease.

CLII.

IN women, gleet is a more frequent disease than in men; and from the structure of parts, it is only to be cured by the present means, as bougies cannot be employed;

ployed; and in the use of all the topical remedies applied for the cure of gleet, they should be persisted in a considerable time after the discharge and other symptoms attending it are removed, till a new state of the parts on which the cure depends is so far confirmed that there is no danger of a relapse;—for each successive return is more difficult to remove.

CLIII.

ANALOGOUS to the cure of gleet by such injections, it is to be remarked, that it has been removed by violent and long continued exercise on horseback; and also, as mentioned by Dr Swediauer, by the rude thrusting of a catheter into the urethra producing an effusion of blood.

CLIV.

HAVING endeavoured to explain the nature and action of direct applications to the part itself in the cure of this disease, we next take a view of those which succeed
by

by an effect on contiguous parts connected with it.

CLV.

THIS effect depends on sympathy, and they act likewise by irritation. Thus a large spreading chancre on the penis, attended with considerable inflammation, has cured gleet. A blister applied to the under side of the urethra has had the same effect. Electricity, by sparks from the glans, has been equally successful; and by attending to the principle on which they proceed, such cures deserve to be imitated. Nay, it has been recommended in certain obstinate cases, on this principle, to attempt the receiving a new infection; which, by the inflammation it excites, and generally in a different part of the urethra, removes the former disease.

CLVI.

FROM the local treatment of the present affection hitherto examined, we proceed in the last place to the Constitutional; which,
we

we remarked, should always be conjoined with the former. The remedies of this kind may be reduced to four heads; of mercurials, astringents, tonics, and stimulants.

CLVII.

WITH respect to the first, wherever it proceeds from ulceration, and a breach of solid has taken place, there is always danger of absorption; and of course the use of mercury is properly indicated, even where topical means are at the same time employed. It will very rarely, however, of itself effect a cure; and it requires in this case a good deal of judgment in its exhibition. It was on this account Mr Daran made it a rule, wherever venereal constitutional symptoms appeared, to delay if possible the use of mercury till the disease of the urethra was removed.

CLVIII.

ASTRINGENTS, the second class of remedies employed, are more adapted to the
cure

cure of gleet arising from simple relaxation than where a real alteration of structure has been induced. The use of these remedies was the favourite practice of Dr Tissot, as we find by his treatise intitled Onania. Their influence, however, is not so extensive as the others; and they are frequently conjoined, particularly with the next class, or the tonics.

CLIX.

THE tonics have been very generally employed in this disease, but not with such success here as in checking the passive discharges that occur in other parts of the system. The idea of debility annexed to the continuance of the discharge, supports, by analogy, in this case their use; tho' they are only to be relied on, like the former, when there prevails a simple relaxation of the mucous glands. The tonic most trusted to is cold bathing.

CLX.

CLX.

STIMULANTS are still more improper than tonics; and it was formerly remarked, that the violence of the disease is increased by whatever accelerates the general circulation. In some constitutions there is a very great peculiarity in this respect, and the most trifling use of stimulants is found to increase every symptom of the disease. They can only act by exciting a degree of fever; and this can only be serviceable where the discharge is kept up by simple relaxation; which is almost never the case, as it gives a tendency to adhesive inflammation. The stimulants commonly preferred with this view are the balsams, from their particular determination to the urinary organs, which is supposed to give them a specific influence on these parts.

CLXI.

CLXI.

III. OBSTRUCTION OF URINE,

CONNECTED with gleet, is the supression of urine from a venereal cause. This complaint has been generally treated at large by all writers, and two species of it are to be remarked; the one acute, appearing during the violence of gonorrhœa, which is merely temporary; the other of a chronic nature, though the effect too of this previous affection, and marked by a train of symptoms, often advancing for a number of years before rising to this height, and depending on a morbid alteration in the structure of the urethra.

CLXII.

THE first of these arises from an increase of inflammation, giving such an irritability of surface, that the stimulus of the urine, as soon as thrown into the urethra, occasions its contraction or spasmodic state; or from a spasm of the sphincter itself, induced by the same cause.

CLXIII.

THIS disease has been generally supposed, even by the latest writers, to depend on a translation of the venereal virus: But what proof have we of such a translation taking place? The same arguments will apply here which were formerly mentioned when treating of the swelled testicle; and if such a translation were actually to happen, the disease, from considering its obstinacy in its original seat, would continue for a length of time, and, from the nature of the parts, terminate also in ulceration, which we find almost never the case; and even then, according to the observation of Dr Swediauer himself, it is produced by the too rough introduction of the catheter, occasioning a lesion in these parts.

Besides, we find women equally subject to this complaint in the progress of gonorrhœa, in whom the seat of gonorrhœa is never in the urethra; and in whom, of course, no such translation can happen.

CLXIV.

CLXIV.

THIS species of the complaint being, as observed, merely temporary, is to be treated by the common means of obviating inflammation; for which two indications come here to be formed.

The first is, to allay irritation, whether from spasm or distention. The former, by the use of opiates in large doses exhibited in glyster, which generally succeed where the disease is not very obstinate: The latter, by the timely introduction of the catheter, thus removing the contents of the bladder; and it should be cautiously and dexterously employed, to prevent any lesion of substance, and nicely adapted in its size to the state of the parts; for in some cases, the spasm is so great, that nothing larger than a catgut can be found to pass: and in such cases, it should be slowly introduced; as from the irritability of the urethra it is thrown, on its application, into frequent spasms through its whole extent,

which require a certain time before they go off, to admit its farther progress.

The second indication for its cure is to excite a powerful irritation in the contiguous parts, thus taking off the spasm from the seat of the disease. This is performed either by the application of blisters to the perinæum, or stimulating clysters to the rectum.

The former is found frequently to act like a charm, even where opiates have been experienced ineffectual: the latter is only to be had recourse to when the bladder is in a very small degree distended, which is seldom the case, as they merely excite its natural contractile efforts by their added irritation; though, if it is so much distended that these efforts cannot be excited, or not with sufficient effect, it then increases the state of the disease; and where they are used, attention should be paid by practitioners to this circumstance.

CLXV.

To show still farther the powerful effects of irritation arising from a consent of parts, and the great degree of attention which the laws of sympathy deserve, Dr Swediauer gives a singular enough fact in the cure of the present complaint.

In a suppression of urine, the life of an eminent physician in the army, he informs us, was saved by covering the glans penis with the fresh pellicle of an egg found between the shell and albumen; which, as soon as it grew dry and began to contract, from its irritation on the glans produced a flow of urine. The application of this fact is of importance. The glans, we know, is acutely sensible. It sympathises in a very particular manner with all the genital organs; and as a proof of it, no disease of them almost occurs without some sensation in the glans being felt and enumerated as a symptom. If such a simple irritation of it as in the fact related was attended with such happy effects, what may not be expected

pected from more powerful applications to this part?

CLXVI.

WE have thus examined the first species of venereal strangury, which generally yields soon to the remedies pointed out; we next enter on the second, or chronic kind, where the removal of the disease is only to be effected by a long continuance of, and unremitting attention to, the means employed.

CLXVII.

THE first and leading symptom that attends this second species, is the stream of urine becoming sensibly diminished, and never being emitted without some degree of pain. When guilty of any excesses affecting this secretion, a total stoppage of it sometimes occurs, which is for a while relieved by the common means of obviating inflammation. These fits of suppression become gradually more frequent, and often without any exposure to the causes formerly

ly inducing them. Suppurations from the retention of the urine in the passage, and the increased stimulus it hereby acquires, come then in process of time to form; and at last discover themselves by breaking externally in the perinæum thro' a fistulous opening, at which the discharge often continues to be passed for life. This is perhaps the most miserable state to which a patient can be reduced by disease. From its continuance he soon acquires a strong urinous smell, which renders him unwelcome to society. But besides this, the disease advances still farther; and by the increase of inflammation wherever a fistula in perinæo is formed, sinuses arise which run in all directions, and are more or less dangerous according to their depth or the parts they affect.

CLXVIII.

THE cause of this affection may be considered always as depending on stricture; and ulceration is only here an effect occurring during the progress of the disease,
when

when it has gained a certain height. This stricture consists in an enlargement of particular parts lessening the diameter of the urethra, in the manner already pointed out when enumerating the causes of gleet; or in a general contractedness of the urethra, which may be termed a state of chronic spasm.

CLXIX.

THIS last is very common in those who have been frequently subject to gonorrhœa, and where an improper use of injections has been made, being particularly marked by the following train of symptoms. The patient, as already mentioned, first perceives his stream of urine diminished; and he cannot void it without some difficulty. This difficulty he generally complains of in his first attempt. By exerting some little force with the abdominal muscles, the resistance is overcome for a time: but the resistance increases again as the bladder collapses, insomuch that it cannot be emptied beyond a certain

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point;

point ; and the last drops of urine which have passed into the urethra, wanting a sufficient impulse from behind, ooze out and continue to come away for some time after micturition. Under these circumstances, also, the semen is never expelled in coition as it ought to be, though secreted in proper quantity ; and thus a species of dyspermatismus, or impotency, likewise occurs ; for when thrown into the urethra, it is soon arrested in its course. It is on this account the present complaint is seldom mentioned to the surgeon ; and even where a bougie is passed here, it meets with no particular resistance. This fault has been generally ascribed to a particular state of the muscles of the penis, which serve for the expulsion of its fluids : but as the urine and semen are both discharged better in proportion to the time the penis retains its erection ; so it seems to depend on a contracted or spasmodic state of the fibres of the urethra, with a want of secretion of mucus, the consequence of the obliteration

literation of some of its glands induced by previous inflammation.

CLXX.

BUT the former species of stricture, or an enlargement of some particular portion of the urethra, claims more especially our attention, and is to be considered as the most puzzling circumstance that falls to our management in surgery. Wherever, combined with suppression of urine, the latter, when it comes to be discharged, is not voided in a full stream, such a cause may be suspected; and the introduction of a catheter or a bougie becomes always proper to ascertain it.

CLXXI.

THE period at which this complaint comes on, after the departure of gonorrhœa, is various. In some, it appears so early as in a few months; in others, not till the distance of so many years; and even in some it is not preceded by any symptoms which could give suspicions

of its existence. It is, however, in general slow of forming; and when formed, possesses, as well as the natural substance of the urethra, in a certain degree, the power of contraction, so as at some periods of the season to give greater uneasiness than at others. In some cases, the stricture extends in the urethra, as Mr Hunter observes, above an inch; of a hard white texture, and resembling a piece of packthread drawn across.

CLXXII.

MANY authors have doubted whether these strictures are to be considered as the consequence of venereal irritation. If not of the infection as specific, they are certainly the effect of inflammation, most probably from a venereal cause. The arguments on which they ground their opinions are,

1. The occurrence of partial stricture in all passages.
2. The distance of time at which they take place from the original disease.
3. Their

3. Their situation; which is never where gonorrhœa attacks, but in the membranous part of the urethra.

But these arguments are by no means conclusive; for,

1. The passages most liable to stricture we find to be such as are most readily attacked by venereal infection, particularly the nose and throat.

2. From the very period of gonorrhœa the complaints often begin, and by looking into Mr Daran's cases, you will find instances where the impediment was increasing for no less than 30 years. And,

3. With respect to the situation of stricture, it is not to be expected to arise in the seat of gonorrhœa, as it is induced during the violence of cordee, which will chiefly affect the membranous part of the urethra.

CLXXIII.

THE cure of stricture is only to be effected by means of the bougie, in the manner formerly directed on the subject of gleet.

CLXXIV.

CLXXIV.

WHEN that particular species of stricture occurs, consisting in an enlargement of the prostate gland, some diversity in its treatment is necessary. The use of this gland we are yet unacquainted with ; but wherever it is in a diseased state, from its situation in the urethra, it must be attended with danger, by altering both its size and shape.

CLXXV.

OF the higher parts of the urethra, none is so liable to become diseased from the consequences of any preceding affection as the prostate. These effects are seldom felt till advanced life, at which period the primary disease is forgot ; for the fluid secreted by it ceasing then to flow, it becomes useless, being no longer designed for generation. At this time, therefore, in those who have often been under gonorrhœa, the prostate and parts connected become extremely painful, from its hard indurated state;
which

which renders the remains of life generally miserable.

CLXXVI.

THE symptoms of the diseased prostate are the same with those which mark the presence of calculus; and it contracts the canal chiefly laterally, and stretches it from before to behind. Part of it also swells into the bladder, so as to act as a valve on the extremity of the urethra. This renders the introduction of a catheter or bougie difficult; and wherever, on sounding, no stone is felt, it may be suspected, being then easily ascertained, as formerly remarked, by examination *per anum*; for by this mode of examination both its size and state can at all times be pretty certainly determined, as it lies with one flat side in contact with the bladder and the other with the rectum.

CLXXVII.

IN this case, where the catheter is required, it must be flexible, though even it
too

too will stick at times, yet it more frequently gets through; and in order to effect it, when it begins to stop, withdraw it a little, and depress the handle, which, raising the point, will allow it to proceed. Or wherever the bougie, instead of the catheter, is here employed, it will be better to bend it at the point previous to its introduction; and let it be quickly passed before it loses its bend, which will facilitate its passage.

CLXXVIII.

FOR the cure of this affection, when once ascertained, three indications come to be formed.

1. The first is to palliate uneasy symptoms; which is best performed by the use of opiate-glysters, repeated according to the urgency of pain.

2. The second is to effect resolution; and this is attempted by blisters to the perinæum, the application of mercury to the same part, cicuta internally in large doses, sea-bathing, &c.

3. The third, where the former is impracticable, to induce suppuration by the use of the bougie, as formerly directed. But this last method should seldom be practised; for the urine irritating the granulations, they lose their disposition to heal, and become hard and callous.

CLXXIX.

BUT in certain obstinate cases from this cause, where the suppression of urine is considerable, and neither a catheter nor yet the smallest bougie can be allowed to pass; in order to procure a temporary evacuation till the original disease is subdued, it may be found necessary, though it is very rare, to make an opening into the bladder by a puncture with a trocar. From the situation of the bladder, this puncture may be made in two situations. Either,

1. As being so violently distended, above the pubes. Or,

2. Below at the side of the prostate, making the opening into its neck. This
last

last is preferable; as the bladder, in emptying, immediately descends from the opening in the former situation, and the urine insinuates itself into the cellular membrane.

CLXXX.

HAVING considered the nature and treatment of stricture, we next attend to its consequences, when continuing long, and before the treatment recommended has been employed. These consequences may be considered,

1. As affecting the urethra itself.
2. As affecting the urinary organs at large. And,
3. As affecting the system in general.

CLXXXI.

THE first effect that attends the continuance of stricture, is the enlargement of that part between the stricture and the bladder, the urine being thrown out, and the sphincter preventing its return; so that till it overcome the resistance of the stricture assisted by the expulsive efforts of the bladder,

bladder, it is detained in the urethra, extending its fibres, and producing a distention of that part. In consequence of this distention proceeding a certain length, and from the violence of the irritation the urine occasions exciting inflammation, a lesion of substance in some part, and a consequent ulceration, takes place; and in this way, by the process of ulceration, a new passage is attempted to be made for the discharge of the urine, which is generally on the inside of the urethra, and close to the stricture, which comes in time to be involved in this ulceration; when the obstacle being removed, nature often effects a cure.

CLXXXII.

BUT by this effect of the urine in inducing ulceration, it comes to insinuate itself into the cellular membrane of the scrotum; and, by continuing its ulcerative power, many openings are formed, which either communicate with the urethra, or by
breaking

breaking at last externally, produce fistula of the perinæum.

CLXXXIII.

Previous to this lesion of surface externally in some constitutions, where a calculous disposition takes place by the stagnation of the urine, nuclei form in the cellular membrane; which increasing the original stricture or obstruction, occasion a violent increase of the symptoms till ulceration takes place.

In other cases, again, where the formation of matter does not happen at all, a considerable inflammation being induced, mortification ensues; so that all before the testicles sloughs off, when death of course supervenes.

CLXXXIV.

WHEN the ulceration, forming a new passage, begins in the membranous part of the urethra, a swelling may be felt from it towards the perinæum; and in this case we have often an opportunity to prevent
the

the farther progress of the disease.—This we attempt in three ways.

1. By removing its cause, depending on stricture, by the use of the bougie, or the application of caustic; and in this case, a hollow bougie, as recommended by authors, will seldom be submitted to, as it keeps the patient constantly wet. It is at the same time an improper instrument; for its diameter not being sufficient for the passage of the urine, it passes off by its sides, and it promotes the very circumstance of the insinuation of the urine it is meant to prevent.

2. By the common means of obviating inflammation, by bleeding, fomentations, warm steams, &c. to the part. Or,

3. Where the two former fail, by incision, preventing the insinuation of the urine into the cellular membrane; and the method of performing this is, by passing a director into the urethra as far as the stricture, then cutting upon it, and afterwards making an incision beyond the stricture to allow the passage of the urine.

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After

After this operation, however, the inflamed parts require great attention, as there is much hazard of their terminating in gangrene. To prevent this, they should be dressed with opium, as tending to lessen their irritability; and if suppuration should anywhere form, it should be speedily opened.

CLXXXV.

BUT where the urine has once insinuated itself into the cellular membrane, its effects cannot be prevented; and by the process of ulceration extending and increasing the formation of matter, openings are formed, as we remarked, either into the urethra, or externally appear through the teguments of the perinæum. Such formation of matter is marked by a throbbing deep-seated pain, with tension and fulness of the part. When it breaks into the urethra, it may be discovered by matter preceding the discharge of urine; and when, again, it is carried backwards into the bladder, as is sometimes the case, though
more

more rarely, matter commonly appears with its last drops. In all these cases, the removal of the stricture in the passage is one great step to the cure of the disease. Where the matter points externally, or a fluctuation is felt in the perinæum, it is to be opened by incision as soon as possible. Though in all these cases, from the stagnation of the urine and morbid state of the parts, the healing of such abscesses is always tedious.

CLXXXVI.

As this difficulty of healing is greatest where the abscess opens externally, forming fistula perinæi, and is often increased by the stricture not being entirely removed; in order to its cure, it is necessary that the natural passage should be made as free as possible, and that the discharge of urine by this way should be as much prevented as we can. For this purpose, an operation has been sometimes, after other methods fail, performed; and it consists in first laying it open

to the bottom, then introducing a small flexible catheter into the urethra beyond the place of the fistula, and then bringing together the sides of the latter, and retaining them by the twisted suture. Mr Daran, however, in his practice, was against all incisions of these parts; being of opinion, that they would always yield to a proper use of the bougie attentively employed.

CLXXXVII.

THESE, then, are the consequences of stricture on the urethra; and we next examine its effects on the urinary organs at large.

CLXXXVIII.

THE first of them is an increased power which the muscular fibres of the bladder acquire, becoming fasciculated from the more violent efforts which the existence of stricture occasions for the expulsion of the urine, attended at the same time with a thickening of its substance, so as in some
the

cases, according to Mr Hunter, to measure half an inch. This is the effect of all long-continued irritations, which, collecting in the organ a greater proportion of fluids than what its usual circulation admits, produces, in consequence of this, an apposition of new matter to its substance; and thus also inflamed parts are always found considerably thickened. This state of the bladder is communicated also to the extremities of the ureters, where, from the retention of urine, and its pressure backwards, a considerable distention of them occurs: For the stimulus of the urine is meant to possess in health a certain proportion to the irritability of the bladder; and where it is retained beyond the time this stimulus is once exerted, it must act against the organ that contains it.

CLXXXIX.

THE effect of ulcerations in the urethra on the system are very considerable, especially where they are near the neck of the

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bladder,

bladder, occasioning fever, attended with violent pain. This however comes to remit as matter forms; though, if this formation of matter is great, hectic symptoms often arrive which prove fatal. Bark should be here early had recourse to; and sudorifics tend to relieve the symptoms of increased action; while pain and other uneasiness are to be allayed by the occasional use of opiates.

CXC.

IV. COMMON SYMPTOMS SUCCEEDING
GONORRHOEA.

HAVING examined the several consequences of gonorrhœa in its most unfavourable termination, it still remains to mention those circumstances which usually succeed it, where none of these secondary diseases occur.

CXCI.

THESE consist chiefly of uneasy sensations in the urethra, with remaining itching

ness of the glans; and more especially do these occur, if the former symptoms have been violent, so as to occasion from sympathy any increased irritability of the bladder. They are merely temporary, and gradually go off in a short time; though they harass the mind of the patient, and render him not a little anxious about the certainty of his cure; so that he frequently becomes the dupe of the designing, who wish to persuade him of the continuance still of the disease.

CXCII.

As these symptoms arise from an increased irritability of the parts, their cure depends on allaying it either by the use of sedatives or the application of a blister to the perinæum. Sometimes passing a bougie a few times, as Mr Hunter observes, will remove them. At other times they increase considerably, attended with strange shootings in the penis, and frequent calls to urine, the testicles feeling as if they re-

quired suspension; and more especially when the legs are squeezed together, so as to give suspicion of the patient's having the stone. Neither the application of mercury nor yet injections have any effect; but with time they generally go off, though you will find it a difficult matter to calm the fears of the patient.

CXIII.

V. DISEASES FROM RETROPULSION.

To conclude this division of our subject, it remains only to enumerate some peculiar affections which have been mentioned by authors as immediately succeeding a sudden suppression of the discharge; and which has led to a confirmation of the opinion formerly entertained, that there was something critical in its evacuation, while the modes of practice employed should be such as promoted it. The laws of sympathy we are as yet not sufficiently acquainted with; and therefore to deny such consequences would be presuming
too

too far, though to admit them implicitly would favour strongly of credulity. We shall on that account entirely suspend our judgment on this head, and give only what has been delivered by different writers from observation in practice.

CXCIV.

ALL the affections arising from this source are marked by a violence of symptoms uncommon to the nature of this disease; and two of them have been particularly insisted on, ophthalmia and deafness. Both of these affections are attended here with the most acute inflammation, more so perhaps than in any other case; so as totally to destroy in a few days, if continuing, the functions of the respective organs.

CXCv.

THIS species of ophthalmia was first described by Mr St Ives in his Treatise on the Diseases of the Eye. It was afterwards
taken

taken notice of by Dr Astruc, and is lately mentioned by Dr Swediauer. Other instances of it likewise occur in the different periodical publications. The eye in this case becomes reddish and inflamed, with considerable pain, and a constant flow of tears. The eye-lids partake also of this state, being swelled, so as not to cover the eye, and a thickish yellow matter oozes from the sebaceous glands. The disease, if continuing, is soon attended with an opacity of the cornea; and though symptoms of lues frequently affect the eyes, yet they are never attended with the danger of the present complaint, for, if not immediately relieved, blindness commonly ensues in a few days.

The cure is effected in two ways. Either,

1. By recalling the original disease.
Or,

2. Obviating inflammation in the part, by scarification of the conjunctiva, and
other

other topical means of removing increased action.

CXCVI.

DEAFNESS, the second affection from this source, is equally violent in its symptoms with the former, attended with most acute pain, and suppurations soon form; so that the structure of the ear coming to be destroyed, the loss of hearing is never to be again repaired. The method of treatment is much the same with that of ophthalmia, allowing for the different structure of parts; and the great point, in all these cases, is to subdue the activity of the inflammation before it pass into any secondary state, particularly suppuration.

CXCVII.

PARALYSIS has been also mentioned as an effect of retropulsed gonorrhœa. It is generally here partial, and yields to a mercurial

curial course; while, in the progress of its cure, the original affection of the urethra returns with the same violence as marks the incipient state of the disease.

CXCVIII.

ALL these affections are to be considered as very rare, and as yet we have not had sufficient experience to ascertain with exactness their true nature; so that we are obliged to go by the opinions of authors, who frequently ascribe to this cause whatever affection occurs during the progress of gonorrhœa, when perhaps it may be more justly referred to another source; for even the cure by mercury, and also the return of the original affection, are by no means certain marks of the disease arising from this source. Mercury cures many diseases, and its stimulant powers are certainly favourable in many cases to the removal of paralysis; while the urethra, we know, after gonorrhœa, similar to all parts
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the seat of hemorrhagy, retains its disposition to continue the discharge, and this more especially when a universal increase of circulation is produced by the action of mercury.

II. OF

II. OF CHANCER.

CXCIX.

OUR remarks have been hitherto confined to the action of the virus on a secreting surface; and we are now to view it in a different one, or a porous; where, in order to produce a similar effect, which consists in forming a secretion, a lesion of the part must necessarily take place. For in consequence of irritation, wherever applied, it is an invariable rule of the animal œcenomy, that matter must be formed with a view to remove the morbid

bid cause. This is easily excited on a secreting surface; and where no natural discharge prevails to effect it, an altered organization must be produced.

CC.

THIS alteration in the present case has been termed Chancre; and from the different appearance it assumes, it is properly divided into three species; the Ulcerous, Lymphatic, and Vesicular.

CCI.

IN every case of chancre, the introduction of the virus is during the first moments of coition, when that turgescence of the parts which fits the absorbents of a porous surface for action takes place, and when the friction necessarily joined contributes to favour its insinuation; and in this it differs from gonorrhœa, where the virus is, on the contrary, taken up during the state of collapse. The late Dr Hunter supposed that the virus has not sufficient power to act on the common
skin

skin without some erosion or chop in it to admit its introduction; and that it is only in such cases that chancre takes place. But this, however just in some cases, is not always true. We find chancre where no previous lesion at all happens; and must therefore conclude, that the friction and excited state of the surface itself remarked are sufficient to give it a power of acting.

CCII.

THE seat of chancre is most commonly either externally on the skin of the penis, or on the frænum and prepuce, when a surface similar to that described under the first species of secreting surfaces, and discharging a thin lymphatic fluid favouring an erosion, receives it; and it is to be remarked, that chancres are always here more virulent than when they arise on the common teguments. Chancres more rarely appear on the glans; and the reason of this may perhaps be ascribed to a general exsudation of an oily fluid from the whole of its surface in time of coition, producing
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that appearance of sweating which takes place during the first symptoms of gonorrhœa. In this idea we are even supported by the authority of the late Dr Hunter, who considered such an exudation as really taking place; and as not confined, which some authors have done, to a particular spot, where what they termed the *Glandulæ Odoriferæ* were situated, but as consisting in a general exudation from the whole surface of the glans, which prevents the adhesion of the venereal matter.

CCIII.

THE first species of chancre, or what has been termed the Ulcerous, is most common. It has been principally attended to by authors, and the others have only met with a very superficial consideration. It appears at first in the form of a little red pimple, attended with considerable itchiness; and becoming soon pointed at top, it inflames and becomes excoriated, changing to pain. In some, it is diffused over a considerable portion of surface; in others,

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and most frequently, it produces merely a round pustule, the very point of which opens; emitting a discharge, which varies in its appearance according to the state of inflammation; and till then there is little tumefaction, which begins after this to be more considerable, and a peculiar characteristic hardness is soon observable on the edges of the sore. It gradually extends itself in depth, and an excoriation generally takes place from the acrimony of the discharge wherever it touches. Various symptoms arise in the neighbouring parts from its irritation, and the progress of the affection advances with various rapidity according to its situation and the state of the constitution it attacks; and this circumstance, of the manner of its progress, has been considered as marking the latter.

CCIV.

THIS, then, is the history of the first species of chancre, which appears in the form of an open sore. The next, or what
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we have named the Lymphatic, consists in a simple lymphatic swelling, which has its course observable to the feel, somewhere from the prepuce along the direction of the penis, in the form of a straitened cord. At times, however, the finger can hardly detect it; and it is this, perhaps, that has given rise to the observation of authors, that constitutional symptoms have occurred without any topical affection. Such cases, however, if accurately examined, would have been found perhaps to arise from this mode of infection: for though absorption is not equally strong from this source as the former species, where a lesion of surface is produced, yet it frequently takes place, however slow in its operation*; and as the extremities of the absorbents are more irritable than in their course, it is to be naturally supposed, that the vene-

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real

* This symptom of the hardened cord Mr Hunter has considered under gonorrhœa; but from many cases of it, as there is an absorption, and as in general no absorption prevails from gonorrhœa, so it should be considered as a separate affection, and placed here.

real virus, if capable of acting on the system, will always before this act equally on the part by the irritability of which it is primarily received.

CCV.

THE last species of chancre, or what has been denominated from its appearance the Vesicular, is the simplest, for the most part, of any. It is most common on the prepuce; and is merely a clear limpid vesicle, which continuing but a short time bursts; and discharging its contents, either removes in this way the infection, the surface below being unaffected, or where, from the period of its continuance, a change in the latter has occurred, it terminates then in the first species, or an ulcerous sore.

CCVI.

THE occurrence of chancre is not just so frequent as that of gonorrhœa; and from calculations which have been made by some authors, they may be considered as one to four. The period from the
time

time of infection at which they make their appearance, is generally, however, sooner than in gonorrhœa; and this seems connected with the very manner of its introduction in such cases. Some have alleged it to be later, though in all instances that have fallen under our observation the reverse has taken place; for in some their appearance we have met with so early as in the course of a few hours, though the medium of their attack is from 24 or 36 hours to four or five weeks from the date of infection.

CCVII.

CHANCRES of the first species have some analogy in their effects to cancer, and they possess a natural tendency to go deep. Hence, in particular situations, they have been known to eat into the corpora cavernosa, &c. The inflammation which attends them, when on the prepuce or frænum, is of the erysipelatous kind; and in some constitutions, where it runs high, has been known to terminate in mortification.

In these cases, the chancres begin by sloughs, which are repeatedly cast off; and sometimes they are known to bleed profusely.

In women, these chancres appear much the same as in men. They are usually more numerous, from the surface being more extensive for their origin; and the danger of absorption from them is likewise here more considerable.

CCVIII.

IN chancre, as in the other venereal affections, the virus only operates or continues its active state a certain period, and a decay of the disease then supervenes, or a new disposition, to be afterwards remarked, commences, which under the use of mercury is considerably aggravated. It occurs chiefly in scrophulous constitutions, or where, from the use of mercury along with the local treatment of the disease, such a relaxed state of constitution is induced as prevents, after the extinction of the venereal virus, the cicatrizing of the sore; while, by continuing the same remedies

medies which destroyed its active state, it not unfrequently displays a cancerous tendency. Of this Dr Swediauer has given some remarkable instances; and the history of these will enforce the propriety of this distinction.

CCIX.

BUT as gonorrhœa does not always depend on the application of a specific virus, so ulcers of the genitals frequently appear similar to the present, though independent of any causes applied by coition. These are remarked even by Celsus; and it has been too generally supposed, that every lesion of surface in this situation derives its origin from a specific taint. We should endeavour, then, with all the exactness in our power, to ascertain the nature of the affection before we proceed to its treatment, as highly necessary to the success of the latter; and it is on this account the best writers have remarked, that the management of chancre admits of great variation. It is very common, however, for

gonorrhœa and chancre to be received at the same time; and in this case there is no doubt about the real nature of the latter.

CCX.

THE number of chancres received by one infection is very various. Sometimes there are only one or two; at other times they are more numerous, and form a sort of cluster round the prepuce and neighbouring parts. You can generally, however, determine their number in a few days, or on the first appearance of one; and the discharge from them, though liable to excoriate or pit the adjacent surface a little, does not seem capable of producing real chancre on the same person, or to affect in the same way the contiguous parts it touches; which confirms the theory of the introduction of the venereal virus advanced. The progress of chancre is also very various; for in some they extend remarkably in a few days, while in others they retain

tain much of their original state for as many weeks.

CCXI.

IN all cases of chancre, three symptoms will be found, if attended to, particularly to distinguish them.

1. The first is considerable pain, which always attends the primary deposition of the virus, while there is little or none that arises from ulcerations in its constitutional state.

2. The second is hardness of its edge; which is here more considerable, in proportion to the size of the ulcer, than when it arises from the constitutional taint. And,

3. The third is a greater circumscription of the fore, which shows less tendency to spread.

CCXII.

SIMILAR, then, to the other affections which arise from the primary action of the venereal virus, chancre we consider
entirely

entirely as a local disease; and its cure, in the same manner with the affections hitherto described, is to be attempted by attacking it locally. With this view, the different modes of practice which have been employed for the removal of the first species may be reduced to three heads.

1. The first consisting, in their total destruction.

2. The second, in changing the specific to common inflammation, or that process by which the renewal of parts where a loss of substance occurs is effected. And,

3. The third, in merely obviating morbid irritability, as on this property of the animal fibre the action of the virus chiefly depends.

CCXIII.

THE first of these is so ancient as the days of Ambrose Paré, but has of late been revived and strongly inculcated by Dr Monro, from consideration of the virus being confined to the very spot where the ulcer or pustule appears; and it may be done

done either by excision or the application of caustic, by either of which a common wound is produced. Excision, however, in particular situations, cannot be so easily employed, as there is danger of hemorrhagy being induced; and the caustic, therefore, though more tedious, is generally preferred. For this purpose, it should be pointed in the form of a pencil, and the affected part touched with it repeatedly every 12 or 24 hours, till its surface acquire the red healthy appearance of a common wound. It can only be used, however, safely in the incipient state of the disease; for if it has continued any time, and there is much sensibility in the part, the application of the caustic will excite considerable inflammation of the contiguous surface, and even increase, before its extirpation, the tendency to absorption from the disease. Nay, Dr Swediauer mentions his having even known mortification of the part arise from this cause. We should confine, therefore, this mode of practice to its incipient state, or to those constitutions
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in which little sensibility of surface prevails, and where the venereal disposition is somewhat counteracted by the inactivity of the part. In these cases, along with the caustic, the cure may be assisted by dressing; and with this view, the mercurial ointment will be highly proper.

CCXIV.

THE second mode of practice has been more generally employed than the former in every case of chancre; and it consists in changing the specific to common inflammation, which is performed by exciting in the part such an irritation as is incompatible with the action of the morbid cause. To explain the propriety of this indication, we observe, that all poisons possess a tendency to destroy the action of the vital principle in the part; and the inflammation they excite is never attended with that process by which its regeneration is produced. By subduing, therefore, entirely the morbid action of the part, or exciting in it a superior irritation to that

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originally

originally prevailing, for two irritations, we find, equally strong, cannot take place at once, common inflammation, as the effect of the applications in this case is allowed to occur; and its consequence is the removal of the lesion taking place, as in other cases of simple wound.

CCXV.

THE remedies answering this intention are numerous. They consist of mineral substances; for the vegetable for this purpose hardly deserve to be mentioned, as not being sufficiently powerful; and they are either mercury, lead, or copper, applied in the form of ointment, powder, or solution. Of these, a few of the most celebrated deserve to be mentioned.

The preparations of mercury have been the most generally used, particularly the corrosive sublimate and red precipitate. The former of these is usually applied in solution; and by the addition of a little crude sal ammoniac, its precipitation is prevented. Where its proper degree of strength,

strength, as suited to the state of irritation in the part, is accurately ascertained, it will frequently cure in the space of three or four days. The common proportion recommended here is a grain of corrosive to $\bar{\text{ss}}$. of fluid; and if it gives much pain, it will even require greater dilution. It does best on lint, applied wet to the sore. It is likewise used by some practitioners very successfully in the form of ointment. It seems to succeed best in incipient chancre, in constitutions having a scrophulous tendency.

The red precipitate, again, has been long and very indiscriminately applied for the cure of this affection; and it may be remarked here, that all preparations of an insoluble nature are best fitted for external purposes, by which the continuance of their action on the part is long preserved. It has been recommended here in the dry powder, and directed to be sprinkled on the sore; which producing soon a kind of slough by its high degree of irritation, leaves the surface below on its separation

paration perfectly sound ; but frequently no slough is formed, and then it acts entirely on the principle mentioned, by subduing specific inflammation. It is best adapted to chancres of some standing, and where the parts do not possess a high degree of morbid sensibility.

Besides these, Dr Saunders of London has lately introduced the application of calomel in the form of ointment for the healing of chancre; and observes, he has found it less irritating, and at the same time more efficacious than any preparation he had employed. Making allowance for Dr Saunders's recommendation, from his being the original adviser of this practice, it yet deserves a great deal of attention, and we have no doubt of its success.

In Dr Cockburn's publication on Gonorrhœa, we find an ointment very strongly recommended, consisting of common purified mercury united with turpentine. Its success is there very highly extolled; and the author remarks, that the simplicity of its composition is not before trial

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to prejudice our opinion. In the composition, indeed, of all their ointments formerly, much attention was paid, from the analogy of chancre with other ulcers, to the addition of balsamics. From the effect of these, however, in occasioning the inflammation excited to spread considerably, from being generally, when on the prepuce or frænum, of an erysipelatous kind, and therefore injured by oily applications, particularly those producing much irritation, they came to be laid aside, and are now almost entirely rejected from the simplicity of modern practice. Nay, some late authors have considered an oily medium improper for the application of mercury to chancre at all, as it does not allow it to come sufficiently in contact with the sore. With respect to Dr Cockburn's ointment, as turpentine is known to effect a more accurate extinction of the mercury than any other substance with which its triture is performed, it is to this circumstance, perhaps, any superior efficacy it possesses is to be ascribed.

But

But a more powerful form in which mercury is applied to chancre, is by fumigation. It was formerly much in practice; and in particular cases, where the sore discovers a quick tendency to spread, and occurs in a flabby phlegmatic constitution, it is attended with considerable success. It is inconvenient, however, in its application; and the materials for this purpose are generally composed of cinnabar united with some resinous substance; and these fumigations are to be repeated according to the success their application discovers.

CCXVI.

It has been advanced by an author of the first eminence, that mercury in any form will cure chancre. If this were the case, we should have no occasion for any other compositions than those of mercury: but we find they fail at times, or are too slow in their operation; for their success entirely depends on proportioning their irritation to the state of the disease, in order to counteract the morbid dispo-

P

tion

fition of the part: and hence, in particular cases, preparations of lead and copper have been experienced more successful than those of mercury. Thus, where the sore has been very irritable, the cerussa and minium in the form of ointment have been usefully applied; and where, again, the reverse of this state has taken place, and the preparations of mercury have seemed to exert little or no power, the ærugo æris and blue vitriol, &c. have effected a cure. Dr Swediauer mentions the powder of a particular preparation as still more effectual than any of these, which is the aurichalcum, or yellow copper; and, he observes, he has known it cure ulcers which resisted the power of all other medicines.

CCXVII.

FROM these observations, then, we shall be able to judge of the impropriety of Mr Hunter's opinion, that the venereal disposition is equally difficult to subdue in a
small

small as in a large chancre. In the latter its power is certainly more considerable.

CCXVIII.

HAVING examined the two first modes of practice in the cure of the present affection, we proceed to the last; which consists in simply obviating morbid irritability.

The spreading of venereal chancres was observed to arise chiefly from their sensibility; and of course, in relaxed constitutions, their effects were experienced more considerable. In others, again, where a degree of callosity prevailed, they spread little, and consequently gave small uneasiness. By producing, then, this callosity or want of sensibility, if not absolutely effecting a cure, it will yet diminish considerably the violence of the disease. Some late publications, however, have asserted, that a cure has been accomplished in this way; and a strong solution of opium to the part is recommended. We doubt, however, if a cure is really in this manner to be produced;

duced; though as a useful palliative, and especially in its very sensible state, it will be highly proper.

CCXIX.

BEFORE the practice with opium, from observation of symptoms, practitioners, naturally led to the propriety of such an indication, employed on the same principle, with a temporary view, various emollient applications; as poultices of lintseed and saccharum saturni, warm fermentations, steams of different kinds, as vinegar and spirits, &c. In certain circumstances, these will still be found, especially where the contiguous parts are much affected, highly serviceable.

CCXX.

THIS comprehends the treatment of the first and most common species of venereal chancre. In the cure of the second, or what we have termed the Lymphatic, some difference is required. As it consists of a simple lymphatic swelling impeding the
action

action of the vessel at that part, it is of consequence to ascertain, whether, without a lesion of the part, its contents in that particular spot can be converted to that matter which is absorbed, and on which the farther effects of the venereal virus depend; or whether pus can be formed in the course of the vessels. This Mr de Haen and Dr Cullen have observed to take place in the larger vessels, and attempt its explanation. Why, then, may not the same process, in particular circumstances, occur in the lymphatics? Without this, or the formation of matter in some way or other, we cannot conceive the virus can be any farther introduced; and that it is introduced by what we have termed the Lymphatic Chancre, experience daily convinces us.

CCXXI.

WITH regard to the treatment of the lymphatic chancre, it is somewhat different from the former; and for this purpose two indications we find necessary.

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1. The first is cutting off the communication of the affected vessel with the parts above, as being superficially situated, and thus preventing the progress of the disease. Or,

2. On exciting in the vessel itself such a degree of irritation as is incompatible with the action of the original taint.

CCXXII.

THE first is performed by simply dividing the lymphatic above the affected spot; and let the part where this division is performed be filled with mercurial ointment, which will be found to prevent entirely its farther progress. Or,

Without this division (to answer the second indication), let mercury be introduced from every part of the surrounding surface; by which the danger of suppuration, or the formation of matter, as the original taint will be thus destroyed, will be prevented.

CCXXIII.

CCXXIII.

THE third species of chancre, or the Vesicular, is by far the simplest of any. It appears generally sooner after coition than the two former. Its seat is commonly on the prepuce or frænum, and its virulence depends on the time of its continuance before bursting: For if breaking early, the cuticle is restored, and no farther effects succeed; but where, again, it is long of breaking, and the irritation of its contained fluid has acted on the neighbouring solids, a degree of ulceration is produced, when it terminates in the first species, and assumes soon the same appearance. Its treatment then depends on breaking it as soon as perceived; and if the cuticle heal up immediately, there is no further danger to be suspected from the disease.

CCXXIV.

BUT an opinion long prevailed against the propriety of this local treatment of chancre directed; and by such applica-

tions the virus was supposed to be repelled into the system, and constitutional infection produced. The most strenuous defender of this doctrine in modern times was Dr Fordyce, who even carried it so far as to discharge the use of all topical remedies in every affection arising from the primary action of the venereal virus. The same arguments will apply here which were formerly introduced on the subject of gonorrhœa. And in this case we would beg leave to ask such authors, on what absorption depends? Is it not on irritation applied to the mouths of the absorbents? And what more powerful irritation can there be than an acrid fluid, which even erodes those parts of them it first attacks? If, therefore, you lessen the quantity of this fluid, and prevent its increase; or rather, if you alter the powers of the secretion on which its formation depends; you must certainly lessen the tendency to absorption.

CCXXV.

BUT though authors now pretty generally admit the propriety of local applications, yet it has been an opinion too universally inculcated, that the presence of chancre at all times is to be considered as marking absorption; and from the very first appearance of this affection the progress of the virus into the system is to be suspected as having taken place. This position, however, is by far too general; and in opposition to it, we may remark, that in many cases, even where no remedies have been applied except those to the part, no subsequent lues has been known to succeed: and from the observation which Mr Cruikshank has thrown out on the peculiar action of the absorbents of the penis, we have every reason to conclude, that absorption does not so soon take place as has been hitherto imagined. To determine, however, this question, is of material importance; and as Mr Cruikshank observes, that the absorbents of the penis possess

possess only certain periods of action, is it not probable, therefore, that it is some time after chancre is formed before the absorbents acquire that renewed action which was formerly necessary to the introduction of the virus? and we have therefore every reason to believe, and which experience even confirms, that the early destruction of the chancre demands no farther application. We find, after inoculation, no symptoms occur for a considerable time, even though the virus is introduced, and a lesion of surface to effect it produced. Nay, by cutting out the part some days after inoculation, the constitutional disease will not take place. Hence we conclude, physicians have been too hasty in their conclusions on this head.

CCXXVI.

THOUGH we thus argue against absorption occurring in every case of chancre on its first appearance, yet our sentiments it is not intended to carry too far. It is indeed,

deed not to be denied, that the most frequent cause of general infection is from chancre; and our aim in this reasoning is merely to inculcate, that on any slight erosion of the skin we should not, along with the local treatment, immediately, as is commonly done, have recourse to internal remedies. On the glans, however, as being of a pretty firm texture, absorption is very general. On the other parts which are more flaccid, experience leads to the above reasoning, and that absorption is not constant, for some time at least, from these situations.

CCXXVII.

BUT even allowing absorption to have taken place, another question arises, Whether, by the internal use of mercury, lues may be prevented from making its appearance? Though mercury cures the disease when already formed; yet we have every reason to infer, that it will have no effect on the virus when diffused, and before,

fore its particular effects are produced. Many facts seem to support this; for we know, that even in case of chancre, after the internal use of mercury has been continued for some time, constitutional symptoms have yet supervened. We know also, that during a mercurial course a new infection has been received. This shows, therefore, that mercury does not act on chemical principles, as has been alleged; and the same we find also the case in regard to the action of other poisons, as the rabies canina, where no remedies have any effect in preventing its being formed. Nay, so far is mercury from preventing the formation of lues, that by its use, where the virus has been latent or inactive in the system, it comes then to discover itself by its local appearances becoming more general in order to the termination of the disease. Where, therefore, it is used internally in cases of chancre, it is more to comply with common opinion than from any expectations we are to form of its success.

cess. If any thing, it must do harm; as by increasing, in consequence of its stimulus, the irritability of surfaces, it must favour the deposition of the virus, when it might otherwise remain inactive.

CCXXVIII.

IN particular situations of chancre, where local remedies cannot be applied, from the structure of the parts not admitting its retention, the internal use of mercury will become then unavoidable. But these cases very rarely occur; and where they do, it is chiefly in females; and in them, applications should always be made in the form of lotion, and frequently repeated.

CCXXIX.

WITH respect to the management of the constitution in chancre, it may be shortly detailed, and little attention to it will be necessary. If, however, the constitution appear relaxed and irritable, the use of the bark and tonics will be serviceable,
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especially if the chancre appears to spread. If, again, there is much sensibility, and the irritation of the chancre produces much pain, an occasional opiate will be indicated. In general, however, little of this kind will be necessary.

CONSE-

CONSEQUENCES

OF

C H A N C R E.

CCXXX.

FROM the consideration of chancre, or the primary venereal ulcer, we proceed to examine its consequences; which may be referred to two kinds.

1. The production of a new state in the part it affects. And,

2. The irritation of contiguous parts; the former succeeding its termination, the latter occurring during the progress of the disease.

CCXXXI.

I. New state of parts affected.

This new state in the part gives origin to two affections that are frequently the subjects of our practice; and in the proper treatment and distinction of which the judgment of the practitioner is perhaps more displayed than in any other part of surgery. These are, Warts and Gleet Sores.

CCXXXII.

a. *Warts.*

WARTS are excrescences of the cutis, covered with the cuticle, which arise for the most part with more or less of a pointed surface, and are entirely an increase of the covering of that part from whence they proceed. As they increase they grow gradually rougher and more irregular, but possess no tendency to spread; and are to be considered always as depending on an imperfect decay of the disease in the part. When fretted or roughly touched,
they

they are liable to bleed profusely, and become extremely painful. Authors have divided them into a variety of kinds, according to their particular appearance. This, however, it is not material to enter upon; and their cure is entirely to be accomplished by topical applications.

CCXXXIII.

THE indications, then, we form in the cure of these affections, are either,

1. To effect their total removal by excision; or, where their necks are small, it will be preferable to employ for this purpose the scissars or a ligature. Or,

2. To excite an inflammation of the contiguous parts: for, being the relics of disease, and consequently but morbid parts depending on its imperfect decay, and having no share of vital principle, they readily shrivel on exciting this action or increased exertion of the animal powers; which, by a universal law of the system, in every part possesses a tendency to throw off whatever is extraneous or the effect of
Q disease.

disease. The substances employed to excite this inflammation are numerous; as the powder of favine, the *ærugo æris*, metallic salts, arsenic, solutions of corrosive, &c. in various forms of composition.

CCXXXIV.

CAUSTICS, and other escharotics, when employed, possess the property of answering both indications, as they at once both deaden the disease and stimulate the contiguous surface. It has been observed, however, that where the warts are large, the stronger caustics are improperly employed; for though they occasion their temporary destruction, from the excessive irritation attending their action, they produce a quick renewal of them in consequence of the increased afflux to the part continuing after their removal.

CCXXXV.

FROM want of a proper acquaintance with the nature of these excrescences, and
due

due reflection upon the manner in which the virus in these cases exists, as being merely in the part, many have fallen victims to the ignorance or obstinacy of their physician. Tedious courses of salivation have been fruitlessly endured, and so often repeated, that, under the influence of the specific, life has been terminated by a total decay of the constitution and the occurrence of hectic symptoms. If we consider the small effect of mercury, even in the case of gonorrhœa, we shall not be surprised at its want of efficacy here; and at the same time convinced of the impropriety, without other marks indicating it, of having recourse to its use. When such excrescences, after being destroyed, soon rise again, it is not to be denied that some small share of a latent venereal irritation is retained in the part; but from the former affection of the part, and the habitual stimulus applied to it, it becomes unsusceptible of any greater effect. Hence there is no danger in its continuance, and general re-

medies are never to be had recourse to. It is only, however, of late that some physicians have been convinced of the inefficacy of their practice, though the far greater number still unfortunately persevere in their mode of treatment. Even in the latest publications, we find the most fatal instances of this prejudice; and it is too often the misfortune of science, that early impressions gain at times such deep root as not to be easily eradicated.

CCXXXVI.

b. *Gleety Sores.*

SIMPLE gleety sores are the next effect of chancre in the part it occupies. They arise from that laxity of solid, induced by the disease, which renders the part incapable of resisting as usual the impulse of its fluids, or from having in this state the cicatrix abraded; which is easily done when they break out and appear again in the form of proper chancre. It is generally a thin covered surface that forms their seat, as the glans penis and inside of the

the labia pudendi; and they appear for the most part at the distance of a few weeks from the healing of the former affection, though not always in the place with it. They differ, however, materially from chancre,

1. In their having little hardness of edge; though this is not always the case, as a hardness of edge is sometimes to be remarked.

2. In their showing more tendency to spread than to go deep. And,

3. In their inflammation being inconsiderable.

They occur most frequently in scrophulous constitutions; in which a morbid delicacy of surface, easily suffering abrasion, is conspicuous, or in very relaxed flabby habits.

CCXXXVII.

For the cure of such sores, no certain indication can be formed. They in general get well with time, after a variety of

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remedies

remedies has been ineffectually tried, tho' they are liable to appear repeatedly. From the habits in which they occur, tonics, astringents, and sea-bathing, seem to promise most success as a means of cure.

CCXXXVIII.

THE theory to be formed of such affections is, that the venereal virus naturally decays or wears itself out in the part it first affects by a gradual suppuration of the solids previously diseased; and though it displays itself afterwards in the constitution at large, yet this primary part remains unsusceptible of its farther operation. Thus, in confirmation of it, we find, that those men having gonorrhœa are less liable to a second infection than those who have never had the disease: and hence it is considered by Mr Hunter as the best preventative to the urethra; for the urethra, by the repetition of it, will in a short time become unsusceptible of its irritation. Though perhaps few would choose such an application, yet the fact is ascertained,

ascertained, that every succeeding gonorrhœa becomes milder, and that even constitutional symptoms are milder than those arising from the topical action of the virus. Hence the place of former chancre is not so readily attacked afterwards by the virus in coition; and as gonorrhœa leaves the disposition to gleet, so chancre leaves the tendency to abrasion of the skin in the part forming into a particular species of sore, the nature of which is unknown, and which cannot be termed common sore.

CCXXXIX.

It is often of the nicest importance to determine whether these simple sores are merely the present complaint, or the effect of a new infection; and practitioners of the first eminence have been at a loss to decide. They have too generally determined on their being of a venereal nature; and by prescribing a course of salivation, and the topical use of mercury, they have been for the most part attended with the worst consequences, as mercury is always

hurtful to scrophulous constitutions; and a mortification of the part, or cancer, in such cases, is often produced, independent of its effects on the body at large. A remarkable case of this kind is related by Dr Swediauer. Wherever, therefore, such sores turn worse under the use of mercury, they are to be judged of this nature; and instead of supposing, as is generally the case, that another preparation of the specific will succeed, the plan of practice should be totally reversed.

CCXL.

II. IRRITATION of contiguous parts.

These are the consequences of chancre on the part it affects; and we next examine those it produces on the contiguous parts.

CCXLI.

FROM its situation, the lax texture of the prepuce, and its susceptibility of irritation, they are generally displayed here; and consist in an increased contraction of
its

its fibres and thickening of its substance, so as to produce a coarctation of the parts below confining the feat of the disease. From the form and size of the prepuce, which differs considerably in different subjects, this coarctation is differently situated in particular cases; and this circumstance occasions the forming two species of the disease, known by the separate appellations of Phymosis and Paraphymosis.

CCXLII.

THE phymosis is the contraction of the prepuce over the whole glans at its extremity, so as in some degree to bind it, and generally with a considerable swelling attended with inflammation, often of the erysipelatous kind; for being a dependent part, when fluids are determined in unusual quantity into it, they have no opportunity of passing into other vessels, lessening hereby the inflammation, and so become in some manner extravasated. Such an affection, however, is not always produced

produced by this specific cause. It is liable to occur even in children from simple friction of this part, or in any case where considerable irritation is applied. The aperture of the glans being so much diminished, the seat of the disease cannot be exposed; and matter is liable to accumulate behind, and to erode the parts where it accumulates. Thus ulcerations are produced, opening through the prepuce itself; and the glans is liable, as well as the prepuce, to suffer in bad constitutions, mortification coming on, so that it often proves a very troublesome case; and there is always danger, even in its most favourable circumstances, if continuing any time, of a concretion between the prepuce, where the chancres exist, and glans taking place.

CCXLIII.

FOR the cure of this complaint, the common means of obviating inflammation are to be had recourse to; particularly emollient applications, in the form of poultice, to the part. An addition of
opium

opium in solution generally renders them more successful; and where opium is largely employed, and early had recourse to, there is seldom any danger of mortification coming on; and in this we are confirmed by its effect in that species of gangrene described by Mr Pott as affecting the toes, and where a similar inflammation precedes, in both cases arising from excess of irritation. Besides this, venesection, or rather scarification of the part, is recommended: but it is seldom attended with much advantage, as the irritation from the fores gives a new stimulus to the part; and where there is any discharge between the prepuce and glans, they are liable to degenerate into chancres. It is for this reason that it is proper in all these cases to have the surface between the prepuce and glans kept clean, by the injection of any fluid, or by the insinuation of a probe covered with cadis, where it can be done, to wipe the fores. But where this cannot be done, and the inflammation is considerable, with an appearance of matter confined,

confined, and a threatening of mortification, in order that a discharge may be given, and a view of the parts permitted, it becomes often necessary to slit the prepuce its whole length; and that also, sometimes, where any degree of adhesion has taken place, in two opposite directions. It should constantly be carried to the very root of the prepuce, but should never be attempted when the colour of the inflamed parts appears previously livid. Such an operation, however, will often not be consented to even where indicated; and wherever it can be avoided, we should never have recourse to any operation, as its appearance is always disagreeable. But where matter is confined, a small opening may be made into the cavity of the prepuce with a lancet laterally, to admit its discharge; and in this way dressings will come to be easily applied. The common method, however, of performing the operation, is by introducing under the prepuce a scalpel or bistoury, and making an incision with it through its whole extent; but

but from the laxity of the prepuce, as it cannot be easily kept in a tense state to admit its being readily performed, Mr Bell has lately invented an instrument to prevent the skin yielding, consisting of a knife concealed in the groove of a director, which, keeping it tense on its introduction, allows it to be readily divided. By this operation, dressings can be applied, and any acrid matter washed off which is corroding by its confinement the surrounding parts. Where mortification happens, part of the prepuce, at times the whole of it, has been known to cast off, when the process of healing commences. There is always, however, danger in this case of pox taking place, by the application of the virus from the chancres to this new surface; and wherever, therefore, a tendency to gangrene occurs, bark should be largely exhibited, and mercury soon after, when the slough begins to separate, had recourse to.

CCXLIV.

BUT this species of the disease occurs chiefly in those in whom the prepuce is long; and it is rendered so by being frequently drawn over the glans. Where, however, it is naturally short, so as not to cover the glans; or where, at the beginning of the disease, when it is somewhat swelled, it is drawn forcibly over the glans; the coarctation of its fibres produces stricture behind it, forming two swellings divided by a ring, somewhat similar to stricture of the urethra in the case of gleet. This species, termed Paraphymosis, is more troublesome than the former; and especially when it is changed from phymosis, as there is then great danger of mortification from the stricter coarctation ensuing here.

CCXLV.

THE same remedies are to be employed in this species of the disease as in the former, or phymosis; though the operation is
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here more necessary, and at the same time more difficult, to perform. Before, however, having recourse to it, cold applications have been particularly recommended to diminish the size of the glans; when an attempt is to be made with one hand to push it back, and with the fingers of the other gently to draw forwards over it the retracted prepuce. In this way we may sometimes succeed; but the operation, in spite of it, will be frequently found unavoidable; and the chief circumstance in the performance of it, is to separate the two swellings, by making a deep scarification with the shoulder of a lancet on each side of the penis, for such a length and depth as to divide the prepuce and take off the stricture; and in doing it, attention is to be paid that it be at a distance from the situation of the chancres, as there will be then less danger of absorption.

Frequently, however, the paraphymosis is to be considered entirely as owing to a morbid enlargement of the glans
itself

itself without any swelling of the prepuce.

CCXLVI.

FROM the former of these affections habitual stricture frequently comes to take place; and the elongation of the prepuce in particular often continues with a degree of hardness approaching to scirrhusity in its edge, the thinner parts only of the extravasated fluids during the state of inflammation being absorbed. In this case, every means should be tried of removing the hardness, and producing the retraction of the part, by fomentations, the use of cicuta, fumigations with cinnabar, &c. Should these, however, prove ineffectual, as they often do, and much inconvenience is felt from the disease, circumcision is then to be undertaken; which consists in removing with a scalpel all the projecting part beyond the glans, beginning at the upper surface, and holding the penis horizontally, while in coming round great care is to be taken to avoid wounding the
glans.

glans. It is to be afterwards healed as a fresh wound, though it generally proceeds slowly; and attention is to be paid during the process of healing, to prevent stricture from the cicatrix, by bringing the penis slowly and frequently over the glans.

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OF PREVENTATIVES.

CCXLVII.

WE have thus considered the different effects which arise from the primary action of the venereal virus, according to the nature of the different surfaces to which it is applied; and it will be proper to examine next how far these effects of it may be altogether obviated by a previous exhibition of remedies, or how far we are in possession of means that can counteract entirely the danger of infection; for there is almost no votary of venereal pleasure

pleasure who does not make use of some application of this kind, though ignorant of the principles on which its success depends.

CCXLVIII.

FROM the very first appearance of the venereal disease we find such remedies much recommended; and Fallopius, an author of excellent observation, and in other respects of great authority, goes so far on this subject as to assert, that he should reckon he had done nothing, had he not been equally successful in preventing the reception of the virus altogether as in curing the disease. This idea was likewise supported by the success of mercury in its treatment, and the opinion entertained of its infallibility and specific power. Hence the same reasoning was applied to favour the discovery of preventatives, and the same success expected from their application. The daily occurrence, however, of the disease, in spite of the attempts of so many ages, by the discovery

of a thousand nostrums to prevent its attacks, is the best proof of our ignorance of the specific nature of the poison; and from the little success which has hitherto attended the application of chemistry to detect it, as well as other poisons, there is no prospect of our ever in future ascertaining its specific composition. Besides, the virtues of all preventatives are rendered uncertain from this consideration, that one does not in every connection with a diseased female receive the contagion. It is frequently escaped; and if any remedy has been previously employed, it acquires then a degree of credit to which it is no way intitled. Practitioners, therefore, of the present day, are now fully convinced of the futility of all attempts of this kind; as they are rather held out by the interested with a specious design, than from a real conviction their inventors possess of their efficacy. The idea of being in possession of such a remedy is indeed agreeable to the votary of pleasure, as leading him to rush on to a free indulgence

gence of his desires, which the terror of infection would otherwise restrain. Hence, in every metropolis, practitioners, complaisant to the prejudices of mankind, have readily administered to the safety of their enjoyments by the invention of different specifics; in the use of which, as numerous and complicated directions were given, in the execution of which, from the period at which they were to be practised, generally before the bed-side, no strict attention being observed, their failure, of course, was attributed more to the negligence of the patient than the want of power in the remedy itself; and thus, like every other fashion, they have generally lived a time, till repeated disappointments have at last deservedly consigned them to oblivion. For long, however, this opinion of the discovery of specifics was not confined to the interested solely. Even practitioners of the first reputation considered it as possible; and were ready to blame more their own ignorance, than to admit that the very principles of the

art rendered it impossible ever to detect that occult quality on which the action of a virus depends. Nor was this idea of specifics peculiar only to the present disease. It was strongly favoured, first by the chemical theory, where the operation of different substances in rendering each other inert is very conspicuous; and afterwards by the humoral pathology, where, from the seat of the disease being in the fluids, the application of remedies to alter these became very easily effected. Hence specifics were common to every malady, though the improvement of medicine has now shown the folly of all such attempts; and one of the first physicians of the present day informs us, that of specifics he is not acquainted with one.

CCXLIX.

ALL the remedies that have received the appellation of Preventatives have been presented to us either in the form of lotion or ointment.

Lotions are the most ancient form; and
those

those of Fallopius, and after him Mayerne, were composed of a long list of astringents, which would certainly in some degree lessen the sensibility of surface to the irritation of the virus. But, in order to be effectual, they require to be often repeated, as without occasioning a degree of callosity they cannot succeed; any temporary application of them, unless the composition possess very strong corrugating powers, not being sufficient to prevent the insinuation of the virus which takes place in coition. In modern times, these lotions have given place to a slight solution of corrosive sublimate. In its use, however, there is great danger of its being too strong, and of inducing inflammation; which, instead of preventing, will even favour the action of the virus. It is particularly recommended in a late quack publication in France; and, proceeding on the principle of its decomposing the poison, the author directs it to be prepared in a particular way, which has no farther merit than oc-

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caſioning more of the mercury to be diſſolved in the fluid.

A ſtill more favourite remedy at preſent is the diluted cauſtic alkali; particularly employed with the preſent intention in France, under the name of the Anti-venereal Lotion.

The lime-water has alſo with many been a favourite application; and of late a ſolution of Goulard's extract has been recommended by Mr Hunter.

CCL.

BUT in the uſe of theſe lotions, the views are very different, according to the nature of the ſurface to which they are applied. On the external parts, their action conſiſts indeed in leſſening ſenſibility, as already mentioned; but where, again, they are introduced into the urethra, or applied to a mucous ſurface in the way of injection, as the virus is always involved in that matter, their effect is intended, by ſtimulating the parts here to action, to ſolicit an increaſed diſcharge of mucus,

as

as removing the virus, before penetrating further, and thus preventing the disease.

CCLI.

THE rules for their degree of strength, where they are employed for this last purpose, are, that they should convey to the tongue, on being tasted, a sensible smarting, tho' the pain from it should not continue too long; and if symptoms of inflammation are induced by them, which should never happen if properly used, they may be alleviated by the application of a common poultice.

CCLII.

IN support of the efficacy of such injections, Dr Balfour, in his Thesis, gives a case of their not being employed till a sense of titillation and other symptoms of incipient gonorrhœa had commenced, and yet the disease was removed by their application. Nay, Dr Harrison goes even so far as to mention, that he had known

a gentleman for years exposed to infection, who had by the use of such injections immediately after coition prevented any attack; while others exposed to the same, without this necessary precaution, received it; and that the gentleman at last, neglecting his remedy, experienced the effects of the contagion equally with others.

CCLIII.

BESIDES the remedies mentioned, with many, lemon juice, citron juice, diluted spirits, solution of common soap, &c. have been favourite applications for the same purpose, and act on a similar principle.

CCLIV.

It has been an opinion advanced by many, that the mere washing the parts themselves will be sufficient, without any thing else; and that cleanliness, therefore, tends much to prevent the attack of the disease. From considering, however, the manner in which the infection is received,
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this will appear by no means just: for though, when the disease is once formed, and matter secreted in the parts, the removal of this tends to lessen irritation; yet the mere washing, where the virus has once insinuated itself into them, will not be sufficient to remove it, and the fluid is required to possess a degree of stimulus to promote a discharge of mucus from the secreting surface; while, if the virus is once introduced into the porous surface, or common teguments, no remedies after this will prevent the production of chancre; though, by inducing callosity, its previous insinuation might have been guarded against. Dr Astruc seems of this opinion; and Mr Hunter goes still farther, considering cleanliness as even of no use after the disease is formed.

CCLV.

WE have thus examined the first form in which preventatives are commonly applied, or the composition of lotions; and we next consider that of ointments.

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Every oily matter we know lessens the sensibility of the surface it covers for the time, and prevents the action of any irritation upon it. The venereal virus possesses also a tendency to involve itself in such a matter; and to render it effectual in the present case, two circumstances are necessary: Either that the friction in coition be not sufficient to remove it; or that the oily matter receive such a hardened state as not to be abraded from the surface by the friction. For this reason, the form of pomades is now generally preferred; and they are only to be employed before, they cannot be of any use after, coition. Formerly, from many experiments, simple oil was supposed a very powerful preventative of the present disease; and such a prejudice took place in its favour, that it was regarded as an infallible application, being particularly recommended by a very ingenious surgeon in London. In process of time, however, it began to lose its reputation; and, under the circumstances which attend coition, was found but a weak

weak defence to the surfaces it covered. Instead of it, mucilages, as being more adhesive, came to be applied, and they seem to answer the purpose better; though they are at times liable to the same inconveniences with the former, and no way deserve that appellation of infallibility which the original practitioners have in this case applied to them.

CCLVI.

AFTER these several remedies, then, were found ineffectual, recourse was at last had to mercury with a specific view; and a successful preventative was supposed to have been procured, by anointing the glans and contiguous parts with mercurial liniment, or calomel dissolved in mucilage. This practice we find supported by an experiment of Dr Harrison, tending to confirm the specific powers of mercury; for on mixing a quantity of it, extinguished by mucilage, with a portion of venereal virus, and applying it to a surface, even where denuded of cuticle, it discovered

no effect: and hence he infers its specific powers. But its want of effect here may be perhaps rather ascribed to its combination with the mucilage itself, especially as we find the action of the virus at times prevented by simple oil or mucilage without any addition of mercury; and the influence of these applications, as preventatives, is even confirmed by observation of the milder action of the virus in the vagina of females, where a greater quantity of mucus is naturally excreted than in the urethra. But even admitting that its combination with the mercury in this way rendered it inert, yet the action of the virus will still be very different when applied in its natural state to the surface of the body before being changed by the powers of chemistry.

CCLVII.

Of late, among the French, these different modes of prevention described have been united; and it has been advised, previous to coition, that the glans and neighbouring

bouring parts should be anointed with mercurial liniment; that afterwards they should be washed with diluted caustic alkali, and part of this solution injected also into the urethra; and by its producing, from this last, a discharge of mucus, its success is generally insured. Yet nothing can give us a better proof of the futility of all preventatives than the modern invention of machinery, which the martyrs of Venus have been obliged to have recourse to.

CCLVIII.

FROM this view, then, the general action of all preventatives may be reduced to four heads.

1. In rendering the parts insensible to the operation of the virus; and much nicety is required that the applications with this view possess a sufficient degree of strength: for, on the one hand, we must avoid inducing inflammation; while, on the other, if their stimulus is too slight, they will be attended with no effect. The inducing

inducing callosity in the parts must be a work of time. It is not to be speedily done; and every votary of pleasure, who wishes to enjoy his desires unrestrained, must early and frequently have recourse to these means till a proper state is once induced. It is from this state that those who have been long accustomed to venereal excesses are less liable to infection; and in proof that their action is by inducing this state, we find, that those in whom the prepuce naturally covers the glans, from the latter retaining its sensibility, are more liable to infection than others in whom it remains constantly denuded.

2. In washing off the virus when applied; and they are generally the same remedies with the former, applied to a different surface, or the urethra. The time mentioned when these injections may be used after infection varies. In some they have not been applied, as formerly remarked, till symptoms of gonorrhœa commenced, and yet have been successful. The general direction, however, has

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been, that they should be used immediately after coition; or at least, as a practitioner celebrated in this way recommends, within eight hours.

3. In preventing the virus coming in contact with the parts. The remedies of this kind are much less to be trusted than the former; but wherever their cohesion is very considerable, and the most viscid are to be chosen for this purpose, they will often succeed.

4. In destroying the specific power of the virus though applied; but how far any remedies effect this, is still to be doubted.

CCLIX.

BESIDES the local remedies hitherto enumerated, some practitioners have gone so far, in imposing on the ignorance of mankind, as to exhibit internal medicines with the same view, dignified with some specious title expressive of their pretended property. It is needless to enter much into this subject. We deny that, even when
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the virus is in the system, we possess any remedies to prevent its deposition; and that it is only when it assumes its proper form, as displayed by its action on parts, our remedies have effect. If this, therefore, is just, and which experience daily evinces, how much less must we be in possession of general remedies to prevent altogether infection?

III. BUBO.

III. BUBO.

CCLX.

THE consequence of the action of the venereal virus on a porous surface, or one rendered similar by ulceration, consists, as already seen, in the assimilation of its fluids; and this state of the part necessary to assimilation naturally produces in the contiguous lymphatics an increased power of absorption from the assimilated mass. When absorbed, its effect is to irritate the inner surfaces of the vessels

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taking it up; and in consequence of this irritation, it produces suppuration peculiar to itself. This suppuration, however, very rarely happens in the course of the lymphatics; as the increased action produced in them occasions its being carried forward, till, from some change in the structure of the vessels, its retention for a time is favoured; and from the situation where this absorption takes place being generally some part of the genital system, the inguinal glands are the first seat of its deposition; the affection of which is known by the general appellation of Bubo.

CCLXI.

BUBO, then, is a glandular affection of a part: and it is those glands, as observed, nearest the origin of the disease that are generally affected in this way; the disease then stopping for some time, and proceeding no further.

CCLXII.

CCLXII.

BUT as this situation of the inguinal glands is frequently the seat of other affections of a different nature, it becomes a matter of importance to distinguish them; and these are, either Hernia, or Lumbar Abscess. The distinction, however, if attentive to circumstances, is easily made: for in hernia the tumor is of a round figure, while that of the bubo is more oblong; and the former is likewise sudden in its occurrence, possessing at all times an elasticity of feel, attended with costiveness, and other symptoms marking disorder of the primæ viæ. The lumbar abscess, again, is slow in its formation, is generally preceded by some acute disease, and marked by a long continuance of hectic symptoms before much swelling appear.

CCLXIII.

THE first symptoms that intimate the formation of bubo, are a sense of straitness in the part, and general stiffness of the

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member

member. These symptoms increase, succeeded by a degree of pain, when a distinct enlargement of the part can be felt; and soon after, it is even perceivable to appearance. It begins first in one gland; and by the action excited in this it is communicated to the others contiguous, but for the most part not to the whole cluster; which shows that they are not all connected by the same branches of lymphatics: and it is from this circumstance that we find the seat of bubo in the groin even vary at times. It is commonly, however, on that side where the original lesion of surface takes place, though this is by no means universal; and where it does not happen, it is owing generally to a peculiar anastomosis or decussation of lymphatics, which varies very much in different subjects. When it occurs originally on the frænum, its future seat is more doubtful. Though somewhere among the inguinal glands has commonly been remarked as the seat of attack; yet in certain rare cases, as Mr Hunter remarks, they have appeared near
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the pubes, about Poupart's ligament, and even on the top of the thigh, &c.: but in general we are always to look for them in the external glands, somewhere between the point of infection and the course of vessels to the heart.

CCLXIV.

By some late writers, a very proper division of buboes has been made into the Sympathic and Idiopathic. Under the first, are arranged all those simple glandular enlargements which are merely the effect of irritation on the extremities of their connecting vessels; under the second, are included all those where a real deposition of matter in the gland is the cause of its tumefaction. That this division is well founded, every one conversant in practice will allow; but the proper diagnostics that mark these different species have never been pointed out. We are told, indeed, that those of the first kind generally subside in the course of a few days; and that they require no particular treatment for their

discussion but the removal of the primary disease on which they depend. As, however, wherever, along with primary venereal symptoms, any glandular swelling appears, recourse is immediately had to that method of cure which counteracts the action of the virus in the part, and time is not allowed for ascertaining its true nature by its spontaneous departure, such a division, however judicious, can be of no utility; and, unless we possess some leading marks to determine our opinion at first, our pathology here must be very imperfect.

CCLXV.

ALL sympathetic tumors, it was formerly remarked, have this peculiarity of being soft, and in a great measure for some time, till they suffer much distention without pain; while, in idiopathic swellings, there is generally pain from the beginning. Nor do they observe, at the same time, a similar progress with those that arise from specific deposition. They
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most commonly, also, attend the acute stage of gonorrhœa; and sometimes, where one gland is idiopathically affected, we find two or three contiguous influenced by sympathy.

CCLXVI.

THE time from infection at which a bubo appears is very various, and liable to be affected by the same circumstances which retard or quicken the action of the virus in its primary operation. From chancre it commonly displays itself in six days; and this is to be considered as the most frequent origin of the present infection.

CCLXVII.

IT has been a question with some authors, Whether glands are more susceptible of the present irritation than vessels? and, Whether the virus is weakened by the change it receives in passing through them? It may perhaps be solved by observing, that there is little or no change produced

produced in the vessel in case of lymphatic chancre; and yet the same virus conveyed to the inguinal glands excites there a very considerable alteration. Hence its operation is more powerful in glands; and if we consider the rapid progress of symptoms from the primary action of the virus, we shall be very ready to allow that there is some change induced on it which prevents the same rapid effect: for, in proof of it, the disease always appears much earlier in its constitutional form, where no previous glandular affection weakens its original force.

CCLXVIII.

IN bubo, the inveteracy of infection is perhaps much greater than in any other form in which the venereal disease appears; and it is generally much more obstinate to eradicate without a change being induced in the organization of the part. This is owing to the particular structure of glands, which both favours the retention of the virus when introduced, and promotes

promotes at the same time its action. They consist in a ramification and reunion of lymphatics: and it has been observed, that in all glands a sort of extravasation takes place; which, when irritation exists within the gland, will be more considerable, and favour that change which the action of the virus occasions, and which is necessary to the formation of that matter in which it appears always involved. What is peculiar, however, to the action of the virus in glands is, that it is entirely confined to the external: that it attacks always those nearest the origin of the disease: that it affects only part of one cluster, and there stops for some time: that it does not attack the contiguous clusters successively, as might be supposed, which is the case in scrophula; but that from that gland primarily affected it is directed, without any other local symptoms in its progress into the constitution.

CCLXIX.

THE progress of buboes is equally various as the time from the reception of the virus at which they appear; and this variety, depending on the degree of action induced in the part, either from the power of the virus itself or the susceptibility of the part to be influenced by it, has occasioned their being arranged by authors under the different divisions of Inflammatory, Erysipelatous, Oedematous, &c. But no utility arises from this distinction; and the mode of treatment to be pursued, while the action of the venereal virus continues, is very little different. How long the action of the venereal virus continues in the gland, is in certain cases a matter of great importance to determine, and would form a more proper division; for some species of buboes, though a lesion of surface and other marks of the primary action of the virus have preceded them, and they appear also at first, from the success of remedies, to be of a specific nature; yet

yet soon lose that state, increase slowly, and are little affected, or even hurt, by the application of mercury. This is considered as owing to a scrophulous taint, though this disposition more commonly displays itself when the bubo is in the ulcerated state.

The true venereal idiopathic bubo is always rapid in its progress; and discovers from the first considerable inflammation and tendency to terminate by abscess, with a sense of throbbing pain in the seat of it. From its increase, the contiguous parts become gradually more affected. The member is considerably pained; and from its muscles acquiring a spasmodic state, the walking is in some degree impeded. Fever generally supervenes; and symptoms of universal lassitude, thirst, headach, &c. prevail.

CCLXX.

It is this tendency of the true venereal bubo to terminate by abscess that has given origin to its being considered as of a critical

critical nature, fimilar to the difcharge of gonorrhœa; and has occafioned fo many arguments to be adduced in favour of the modes of practice founded on this idea. Many of the firft writers in medicine have affented to this opinion; and while the doctrines of repulfion and concoction, the relics of chemical theory, are every where elfe exploded, they have been ftill retained as juftly applicable here. But from what has been already delivered on the nature of gonorrhœa, our fentiments here will be fufficiently obvious. As the difeafe all along has been confidered as depending on the formation of that matter in which the virus exifts, and as it appears only in its active ftate when combined with that mattter; fo, wherever its formation can be prevented, or its quantity leffened, the activity of the difeafe muft of courfe be destroyed. The common argument in this cafe employed has been, that if the action of the virus is not allowed to exert itfelf in this way on the part, it muft, by abforption, be carried into the fystem at

large. But does this suppuration ever prevent its entering the system? On the contrary, it promotes it; and during the process of suppuration, a considerable quantity must be introduced independent of what continues to pass even during its ulcerated state; for more surface is then exposed to absorption than in the original chancre which introduced the infection. Hence this practice may be considered as the very best method of inoculating the constitutional disease. Nay, so far have some authors gone, as in all cases of local venereal complaints to forbid the use of topical methods of cure, and to allow the continuance of the secretions which they always form for a certain time; as there is danger, by their preventing it, of the virus being repelled, by the action of these remedies, into the habit. This very mode of practice, however, they recommend, is the best method of producing what they wish to avoid; and by considering the phenomena which succeed inoculation

culatation for the small-pox, we shall be at once convinced of it.

CCLXXI.

IN this case, an erysipelatous inflammation is induced in the part, which proceeds in consequence of the action of the morbid cause, till the formation of matter by the appearance of a pustule takes place: and till this matter is formed, we find, that no symptoms of absorption communicating the disease appear; for not till then are any rigors felt, or pain of the axilla, which marks the progress of the disease. It is not, then, the original matter which forms the disease; it is an assimilation of the fluids of the part where it adheres; and if this assimilation is prevented, no disease can occur, as the medium of its action is wanting.

CCLXXII.

THE propriety of the resolution of bubo in its incipient state we have thus endeavoured to ascertain: but another question

still remains, Whether, when matter is already formed, the same mode of practice should be continued? Whoever is acquainted with the disease, and the tedious process which often occurs after suppuration before a cure is effected, will not hesitate to decide on the continuance of the same plan, and the preventing here a lesion of surface to take place. But as it may be adduced, on our own principles, that an absorption here must undoubtedly be produced; so, for this very reason, as the constitutional disease cannot be prevented, the discussion of bubo, being of two evils to occasion but one, is highly proper; for if brought to suppuration, the same quantity of matter before the process of healing was effected would be introduced; and it is not the quantity of matter on which the violence of the constitutional disease depends, but on the susceptibility of the system to receive the action of the virus, however small.

CCLXXIII.

THESE, then, are our reasons in every case for recommending the resolution of bubo, independent of the consideration of the destruction the inguinal glands must suffer by the process of suppuration; and which nature has certainly placed there for important purposes, which are not to be lost sight of.

CCLXXIV.

BUT in order to have an exact idea of the disease, and to ascertain its progress, on which the success of our practice will greatly depend, the course of bubo, in its natural advances to termination, may be divided into three stages.

1. The first is the simple state of irritation before any external swelling appear, when the virus excites that action favourable to the different changes which afterwards happen.

2. The second is the actual state of inflammation, succeeding the latter, and increasing

creasing the natural extravasation into glands on which the formation of matter depends. And,

3. The third is that of suppuration; when a destruction of organization in the part is produced, and the tumor formerly confined to the gland becomes in some degree diffused.

CCLXXV.

IN entering on the cure of bubo, it is necessary we should have an exact knowledge of the distribution of the inguinal glands; and it is only since we were properly acquainted with the course and distribution of the lymphatic system that our practice in the resolution of buboes has been so very successful.

In the groin, two clusters of lymphatic glands are observable, which are distinct of each other. In most people they have a small communication by a few intermediate branches; and these glands are termed the Upper and Under Inguinal Clusters. The upper receives its branches

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from the root of the penis; while, of course, it is the only one that can be affected by the common method of the introduction of the venereal virus in its primary action. The other is supplied from the lower extremities; and hence it is only affected when any absorption from that situation takes place: and in proof of this, there is mentioned by Dr Swediauer a case of bubo of the inferior cluster occurring from a venereal ulceration of the toe.

CCLXXVI.

FROM this distribution, then, it appears, that remedies should be chiefly introduced into the affected cluster by absorption from the penis; and when it takes place from the thigh, or other parts of the surface of the lower extremities, as the communication is so small, being formed by so few branches, the quantity of any remedy absorbed from this situation is not to be depended on.

CCLXXVII.

CCLXXVII.

FOR the cure of bubo by resolution, when in its two first stages, the indications formed are,

1. To quicken the action of the contiguous absorbents, preventing extravasation into the gland. And,
2. To render the gland itself unsusceptible of the farther action of the virus.

CCLXXVIII.

THE first of these is performed by an irritation sent directly through them, or of a distant part, the state of which affects particularly the whole of the lymphatic system.

CCLXXIX.

TO excite irritation in the first way, mercury is the only substance we know sufficiently penetrating; and which, after absorption, retains still its active state, so as to prevent, during its continuance in the part, that congestion in the gland from

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being

being formed. To insure it success, however, many circumstances require here attention: for it should be introduced in such a way as to act nowhere else but on the diseased part; and hence the mode of applying it is entirely to be confined to friction. It is with this view that writers have been so very strict in the management of their patients during the resolution of bubo, by enjoining their abstinence from every thing that can in the least tend to produce general irritation in the system, or an increase of circulation. This friction is not to be made on the gland itself, as was formerly the case before the course of the lymphatic system was understood: for as no branches enter from its surface into the gland, it passes beyond it; and the purpose of its introduction is thus defeated. From the course of the lymphatics pointed out, the proper situations for performing it are the inside of the thigh and root of the penis, particularly the latter.

CCLXXX.

ANOTHER circumstance to be attended to for the success of mercury in this case is, that it be introduced in a quantity, so as to produce an irritation superior to that of the morbid cause. The action of mercury has been considered in many lights, particularly as exciting a superior and opposite irritation to that of the venereal virus. In this view, the propriety of the present circumstance every one will allow; and in order to its being accomplished, or a proper quantity introduced, as determining its action, three things are required.

1. That it be absorbed by a large surface.
2. That it possess a most minute division of its parts. And,
3. That, though minutely divided, it retain still an insoluble state.

CCLXXXI.

THE first of these has been so much regarded by some surgeons, that from it

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their prognosis of the success of resolution has been formed, as depending on the extent of surface beyond the bubo for a full introduction of mercury: and this is the more to be attended to, when we consider the small number of lymphatics which enter the gland, and of course the very small proportion which must be absorbed into the affected part. It is for this reason that a very minute division of the mercury should take place, that the greater quantity may pass by those few vessels which enter the seat of the disease; and as, from the observations and experiments of Dr Saunders, it appears that mercury never acts in its simple state, requiring a certain change in order to possess activity on the body; and as, in the common preparation of the ointment employed in this case there is no more of it in this active state than what receives a degree of alteration by triture in forming it something similar to calcination; so it should be much more liberally used than hitherto: for its effects depend on the quantity thrown in
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in a short time, or a more active preparation of it ought to be employed. Many authors, indeed, of the first reputation have expressed their surprise at our possessing but one preparation for external introduction; and theory confirms the propriety of our extending the efficacy of our remedies in this way. The acrimony of most of the chemical preparations has been the obstacle to their use; though the mercurius cinereus, and some others, are not liable to this objection. Whatever preparation we employ should possess a degree of insolubility, so as to retain for long an active state, and be confined to the part; on which the success of the resolution of bubo will greatly depend. When applied, let it be continued with steadiness and vigour; and let its quantity be only determined by its effect on the state of the gland; rubbing it twice a-day till the symptoms begin to remit; and, where the surface of absorption is small, keeping it constantly covered.

CCLXXXII.

WE have thus considered the method of cure by an irritation sent through the vessels themselves exciting their action; and shall next examine that which arises from the irritation of a distant part influencing the whole of the lymphatic system.

This consists in full vomiting, whether natural or excited by art. It has sometimes in these cases been known to produce the most powerful effects; and a remarkable instance of this is mentioned by Mr Hunter, where a fluctuation in a bubo was felt, and the surgeon had determined next day to make a puncture; when in the interim, the patient having gone to sea, was seized with a vomiting, which occasioned the total disappearance of the bubo and departure of the disease. Hence, in all obstinate cases of this kind, practitioners have of late strongly recommended a perseverance in the use of emetics where we wish to promote resolution.

CCLXXXIII.

IN this manner is the first indication laid down to be performed; and by the same means is the second likewise accomplished, or the gland rendered unsusceptible of the farther action of the virus: for in all glandular diseases, we observe, where any violent action has taken place in the part, that on its departure it is no longer so easily affected by the same causes which formerly induced the state of disease. And as a proof that some new disposition even occurs, it is remarked, that after inflammation of the kidneys, such an alteration in the secretion of the glands takes place, that an obvious tendency to the generation of calculi is discovered; though no marks of this were ever, previous to their disease, observable. Hence the same gland once affected is never so liable afterwards to be the seat of bubo.

CCLXXXIV.

CCLXXXIV.

THIS, then, forms the treatment of bubo in its incipient state during its two first stages; and the same practice we would still recommend to be continued even where suppuration appears to proceed. We judge of the tendency to suppuration by the size of the tumor continuing to increase, and by its being red and painful after the use of mercury for a few days; and as soon as a fluctuation of matter is discovered, its evacuation is the next circumstance requiring attention. Many surgeons contend, that, even where matter is formed, if mercury is properly and steadily employed, suppuration will almost never take place. But the reverse of this we find by experience happen; and wherever a proper suppuration is induced, it is never to be considered any way different from common abscesses.

CCLXXXV.

CCLXXXV.

THE methods of treating bubo, when arrived at a state of suppuration, may be reduced to three. Either,

1. Allowing a spontaneous rupture of the teguments.
2. Their division by a lancet. Or,
3. The application of caustic.

CCLXXXVI.

THE first of these is now most commonly preferred, as the suppuration is then completely ripened before the evacuation takes place; and the loss of substance is more quickly repaired, the cicatrix being at the same time much less. In the true venereal bubo, the caustic should be always avoided; and even Mr Plenck's improved method of using it will be found attended with disadvantages. He recommends a small bit of the size of a pea to be applied on the middle of a bubo; and continued for an hour, or even less. The eschar is then to be dressed with a composition of
basilicum

basilicon and mercurial ointment; after which it heals up, he observes, in a very short time.

CCLXXXVII.

DURING the different states of bubo, nothing farther should be applied to the gland itself than simply keeping it warm, by covering it with a piece of flannel or fur; and emollient applications of every kind should be avoided. Costiveness is to be obviated as increasing irritation, and pain and irritability soothed by an occasional opiate. When it bursts, the internal exhibition of mercury in small doses will be proper; and the mercurial friction should be then laid aside, while this plan is to be continued as long as the part retains any thing of a venereal appearance, which is only to be ascertained by experience. Yet in most cases of this kind the constitution comes to be affected, and another state of the system requiring our attention then supervenes.

CCLXXXVIII.

CCLXXXVIII.

BUT in the management of buboes much judgment is necessary: and though we have hitherto considered them either as resolving easily, or advancing to proper suppuration, when the loss of substance is soon repaired; yet it is not to be concealed, that they do not always observe such a favourable termination; and this either from the bubo not being originally of a venereal nature, or from the specific irritation soon ceasing to act; in which case, a scrophulous state of the gland is most commonly suspected. This is confirmed by the use of mercury being attended here with the worst effects; and wherever a bubo proceeds slowly, it is to be considered as partaking in some degree of this state. A variety of remedies have been recommended to promote suppuration in these situations; as poultices of mezereon, mandragora, cicuta, &c. but when induced, the matter evacuated is generally of a vitiated nature, or a thin discoloured ichor;

ichor; and a state of ulceration then commences, continued by the acrimony of the discharge, when the sore is distinguished by a hard callous edge.

CCLXXXIX.

It is in this exulcerated state of the part, which is generally attended with a degree of morbid irritability, that the success of opium has of late been experienced so remarkable; and as former practice, in all these cases, led to the indiscriminate use of mercury, no wonder they should have been found so obstinate; the body becoming emaciated, and the strength failing, with quickness of pulse and hectic symptoms; for they seldom yielded to the treatment of the surgeon: but after the patient had been tired out with the fruitless prospect of a cure, and sent to country quarters as the last expedient, a full diet, the bark, and other means of removing irritability, with a total abstinence from medicine, generally effected what the art
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of the physician had only placed at a greater distance.

CCXC.

It is this improper treatment also of bubo in its ulcerated state, or the mistaking a different disposition of the part for venereal, that has occasioned at times its termination in scirrhus. Where this takes place, which is very rare, what has been already delivered on scirrhus of the testicle will be applicable here.

CCXCI.

We have hitherto pursued the history of bubo in the male. It is, however, equally common in women; though its situation is here peculiar, and requires great attention; the seat of absorption being both more extensive, and the course of the lymphatics somewhat different.

Where the original infection is on the labia clitoridis or nymphæ, the bubo generally forms somewhere along the course of

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the round ligaments, and is always here small.

When the infection is near the perineum, then the glands of the groin come to be affected as in men, or it forms somewhere between the labia and thigh. It observes, indeed, greater variety than in the other sex; and is only to be detected by examination and attention to symptoms. In regard to their treatment, the same method is to be employed as recommended for those of the male.

CCXCH.

WHEN the infection does not arise from coition, but is received on other parts from circumstances exposing them to the action of the virus, buboes may form in various situations. They will always be confined to those glands nearest the origin of infection, and with which the vessels of the part are connected; while from the period they require before the formation of matter, and consequent absorption is induced, time will be given for destroying the activity

tivity of the disease. To do this, the course of the lymphatics should be well understood; and every advantage taken to facilitate the introduction of a proper quantity of mercury into the infected glands, as the only certain means of effecting resolution.

IV. OF THE CONSTITUTIONAL DISEASE.

CCXCIII.

IN consequence of the introduction of the venereal virus into a porous surface, or one rendered similar by the process of ulceration, as described under the consequences of gonorrhœa, it comes soon, by the action of the lymphatics situated there, to be conveyed either, first, to the next lymphatic glands, forming bubo, an affection formerly described; or, without this, it is immediately carried

carried to the thoracic duct, and is thus blended with the common mass of fluids undergoing the general circulation. The effect of this union is the production of a slight irritation of the system, attended more or less with rigors on its settling on particular parts: but these are so trifling as to be generally overlooked by authors, as well as the patients themselves, or ascribed to some temporary cause; till at last, after a certain period, it displays itself by a variety of symptoms marking the presence of the constitutional taint.

CCXCIV.

THE period at which these symptoms arise is considerably diversified. At a medium, however, they appear in six weeks after its introduction; but, in some, the time is much shorter, for it has been known so early as 12 or 14 days; the same circumstances which influence its primary operation affecting it also here.

CCXCV.

THE virus, when diffused in this manner, we are of opinion, circulates only a certain time in the general mass. From its nature, and the specific attraction which all diseases, from a similar source, possess, it is determined soon to particular parts, and this determination, the cause of which we cannot altogether explain, displays itself in a longer or shorter time, by the change induced there, according to the susceptibility of these parts to receive its action. Hence we find, in the present disease, and those of a similar nature, that the blood will not infect; as, before the appearance of the specific symptoms marking it, the determination to parts, its peculiar characteristic, has taken place; and it is only the fluids of these parts that can communicate the disease. Nay, in proof of this local action, which the disease even in its constitutional state retains, where a swelling of a single gland is discovered, and the latter is in a situation to be extirpated,

tirpated, as in the axilla (a case mentioned by Mr Hunter), by performing it the disease has been removed. Hence we find, that neither the blood, as already observed, nor any of the common secretions, are affected by it; which is proved by an argument Mr Hunter successfully employs, that were they under the same irritation as those parts where its effects are displayed, instead of secreting their usual fluids, it should be the same matter as that which characterises venereal ulcerations.

CCXCVI.

THE susceptibility of parts to receive the action of the venereal virus is a subject that deserves much attention, and the knowledge of which is greatly connected with the very nature of the disease. It has been generally mentioned by authors under the vague term of State of Constitution: but the idea it conveys in this way is by no means just; for the constitution we find only affected by sympathy, and it is its influence alone on particular

parts which forms the disease. Hence, if these parts are insensible to its operation, no effects can follow its introduction into the system. It is in this way we find the venereal virus so often latent in the system. Every author almost gives instances of it; and Dr Swediauer has mentioned it very particularly, without, however, entering into those circumstances which tend to elucidate the subject. They may, from observation, be reduced to either,

1. Excess of secretion in parts susceptible of its action; or,
2. Their insensibility to irritation: And the latter either from, *a.* Want of sufficient distention; or, *b.* Real callosity.

CCXCVII.

THAT excess of secretion diminishes the action of the virus is confirmed by those of the phlegmatic temperament being least subject to it; and, when receiving the infection, by its being also much longer of displaying itself in such constitutions; while

while the sanguine, again, are remarked to be the most liable to its action.

CCXCVIII.

IN proof of the insensibility of parts influencing it in this way, it has been observed where no symptoms of constitutional taint appeared, and where not the smallest indication could mark the presence of the virus, on receiving an injury on a part it has soon assumed a venereal appearance, and a regular course of medicines to counteract its disposition became necessary. This insensibility has been mentioned as owing to a want of distention of parts; and it is to be remarked, in support of this, that where a latent taint in the female habit prevails, it will frequently lie dormant till either pregnancy takes place, at which time it is liable from the then plethoric state to show itself; or, where women have had no children, till the menses depart, when the general alteration in the system then occurring produces its action. With respect to real callosity,

callosity, it is sufficiently apparent; and the observations already made on that subject, when treating of gonorrhœa, will be equally applicable here.

CCXCIX.

It is the irritable habit, then, that gives the peculiar tendency to most diseases: and this habit is neither confined to the athletic constitution, nor yet to the weak; and therefore we cannot *à priori* judge of it.

CCC.

It has been an observation made by many of the first writers on the present disease, that though the virus remain in an inactive state, these patients still frequently communicate infection to others who are more susceptible of its action. This fact, however, I should be very ready to deny, though strongly supported; for, till the virus produce its effects by the formation of matter, I cannot see any medium in which it can be involved to communicate the disease. It may also be observed

served here, that the constitution is very little affected by the cause of the disease; it is its effects. Hence, where no effects take place, the constitution, or general health, cannot be much influenced; nor can we therefore perceive any hurtful consequences from the virus remaining latent till it is excited into action. Hence the impropriety of that division of venereal complaints known in authors under the name of *Morbi Venerei Larvati*, or Disguised, as no such exist; and the proof of their cure by mercury deserves no attention, as mercury is a cure for many diseases independent of this specific cause. This idea of the virus remaining latent, inculcated by physicians, has been attended with the worst consequences; and it is not easy for those who have once had venereal complaints to believe themselves radically cured. Thus it frequently occasions their patients, when well, to commit themselves to the hands of ignorant empirics; who, complaisant to their prejudices, continue them under mercury till their

their constitution is totally impaired. We wish therefore, for the sake of humanity, to combat this opinion; to establish it as a fact, that the venereal virus, latent in the general mass of fluids, can never be hurtful to the constitution till its effects on particular parts are displayed; and that it may be as safely retained as the blandest substance whatever. The only effect, indeed, it could possibly produce in its diffused state is fever; which we know for certain, even in its most active form, it is incapable of exciting.

CCCI.

THE symptoms which distinguish the constitutional lues we mentioned as very much diversified; and to give, therefore, a complete account of them is almost impossible. This diversity we cannot easily explain; but, from analogy of its primary effects, we endeavour to refer it to,

1. Specific sympathy between certain parts.

2. Dura-

2. Duration of the apparent action of the virus.
3. Peculiarity of general habit.

CCCII.

To explain the first of these, we remark, that since the virus circulates only a certain time in the general mass as an extraneous matter possessing irritation, it is determined, like every other cause occasioning specific diseases, by the action of the heart to the smaller vessels which form the lymphatic system, and are the means of throwing out whatever is noxious to the surface. From the nature, however, of this virus, it does not pass out without irritation of those parts to which it is determined: and the effect of this irritation is a destruction of organization; in consequence of which a new matter is produced similar to the virus itself, which continues its irritating power, and extends the state induced by the original taint, till in process of time the part becomes so habituated to its stimulus as to resist its farther

ther action; or the powers of the system being excited by art, a separation of the diseased spot by a process connected with inflammation, but which we cannot entirely explain, takes place. As the principal seat of the lymphatic system to which this determination is made is every where on the surfaces of the body, from the difference of these surfaces formerly explained, the particular part on which its action is first exerted may be easily accounted for; and its effects, therefore, similar to its primary operation, consist here either in an affection of a secreting or porous surface; and these form two different stages of the disease, into which it is commonly divided.

CCCH.

THE secreting surface commonly affected is that of the throat: and this both from the connection between it and the genital organs, which are almost always the original seat of the disease, in consequence of which a morbid sympathy is

induced; and also from the greater exposure to irritation than any other part, exciting the more powerful action of any morbid cause. The particular spot of it attacked is uncertain. From the glandular nature, however, of the tonsils favouring more especially its operation, it is most commonly displayed here; and from thence gradually extends to the mouth, the tongue, &c. Its effect on these parts is the production of ulceration; and this ulceration is commonly without much tumefaction, and displayed at once, without any previous scale or pustule, as in the case of chancre, which is here prevented from forming by the constant moisture of the part. The appearance it assumes is always very foul, with a whitish colour; and its edges soon acquire a thickness and degree of callosity that easily mark it, being also jagged and irregular. The tongue on being affected becomes thickened, and the speech is thereby injured; or where the ulceration is small, and displays the appearance as if a bit
were

were cut out of it. If communicated to the gums, they acquire the same spongy colour and inflamed edge that distinguishes scurvy, with tendency to hemorrhagy; so that, without other symptoms, it is sometimes a difficult matter, when in this state, to ascertain the true nature of the disease.

CCCIV.

THE action of the virus on the porous surface is displayed by an eruption of pustules on the skin. This eruption, though very various in its appearance, is always of a motled kind, something similar to what is observed at times in the small-pox. It is commonly very general on every part; and the mottledness in some gives place to distinct blotches, which are most visible at their termination, when they acquire the form of a scurf. At first they are rather transparent; but as the cuticle falls off, they then assume this scurfy figure, which is to be considered as a tendency of the disease to decay; though, from

the powers of the contiguous parts not being sufficiently excited to remove the whole diseased portion, the morbid action continuing, the same appearances are renewed; which gradually spread thicker, and increasing in size, continue to separate a copper-coloured scurf, till from the loss of cuticle to supply this scurf, matter forms, and the true state of ulcer is produced. These pustules, however, possess no swelling, and have at the same time little or no sensation; similar to what occurs in elephantiasis, and other chronic diseases of the skin, which has given occasion to their being supposed of the same nature. The fingers often, in this stage, suffer as well as the skin; and it attacks that part of them where the nails are placed; the latter separating, and the surfaces below appearing red and inflamed. The hair has likewise been observed to fall off from those parts covered with it, which during the continuance of the disease has never been restored.

CCCV.

WHEN the eruptions acquire the ulcerous state, their basis is generally covered with a thick lardaceous crust. Their borders receive a hardness of edge or callosity of margin, and a preternatural redness of the skin may be observed all round the ulceration; and there will seldom be any difficulty of distinguishing the disease, if the previous history is attended to, and the progress of the ulceration, with its original appearance, considered.

CCCVI.

WE have thus considered the first circumstance to which the diversity of symptoms attending the constitutional taint may be referred. The next mentioned was that arising from the duration of its apparent action, or the length of period from which the symptoms of the first stage begin. To point out the propriety of what is here advanced, we must be under the

the necessity of repeating a former observation, that the disease, in its two first stages, possesses a natural tendency to decay: but that this is prevented by the action of the parts not being sufficiently excited to effect the complete separation required; and by the morbid disposition of the vessels still remaining, the formation of matter continues to proceed.

CCCVII.

To explain this, however, more fully, it may be observed, that where any irritating cause affects a part, those contiguous to it, by a certain law of the œconomy, endeavour to resist its state, or stop its progress, and that by forming adhesive inflammation. By this the effect of the morbid cause is confined; and the inflammation it produces, termed the Suppurative, consisting in the decay of the affected solid, or its conversion to a matter, for the most part similar to its original cause, is circumscribed; while the adhesive inflammation increasing, the matter is urged

to the surface, or discharged externally; and the former continuing to spread, new vessels are formed on the surface of the part, and the increase of matter is gradually lessened, till these vessels or granulations meeting, the adhesive inflammation occupies the whole, when a complete renewal takes place. But, in venereal cases, from the small power of irritation which the morbid cause displays, the adhesive inflammation is hardly formed; and hence the suppurative not being circumscribed, matter continues to be constantly forming.

CCCVIII.

WHERE art, then, does not step in to stop the progress of the disease, absorption necessarily takes place, occasioning a new deposition on an internal surface. From the sympathy that is observed to prevail between surfaces, and from the action of the heart hindering its influence on the larger vessels, the surface to which it is determined is the periosteum: for in no case have ever internal ulcers from lues,
or

or affections of the larger vessels, on dissection, been discovered; and from the periosteum it comes, of course, soon to attack the bones themselves.

CCCIX.

THE attachment of the virus, then, to this surface, or the periosteum, forms a new period of the disease; which differs from all the rest, and in which the virus is in a state incapable of communicating infection. This has by some been alleged to be the case in the whole period of the constitutional infection. There are many facts, however, in the history of the disease, against this; and the discharge from an ulcer either on the skin or throat, there can be no doubt, where circumstances are favourable to its action, on being applied will communicate the disease. The most strenuous defender of this doctrine, that the secondary ulcers are incapable of infection, is Mr Hunter. That the action of the system comes at last to obviate the nature of all specific diseases is certain;

but on their first appearance, that they still retain their specific nature, is sufficiently proved. If this was the case, as Mr Hunter alleges, why should the secondary pustules in inoculation communicate the disease? They are in the same state with the secondary venereal ulcers; and the inoculated pock answers to the chancre, or other primary action of the virus. At the same time, that they lose at last their power of infection, or that the matter they form is incapable of communicating the disease, is proved by some considerations; for we find in the small-pox, that on their first appearance the matter then is most proper for infection, and that in their fully matured state it frequently fails. Hence the clear lymph is always preferred by inoculators for the operation.

CCCX.

THE difference which the venereal disease has acquired in this third stage seems to depend on two circumstances.

1. The

1. The natural unfusceptibility of the parts attacked to receive its action. And,
2. The difference in the matter they form. The former of these is confirmed by the slow progress it observes; and the latter by nothing else than a slimy matter being formed, and no proper suppuration taking place.

CCCXI.

THE progress which the symptoms of this stage observe are commonly in the following order.

The patient begins to complain of uneasy pains in the night shooting through the bones, and especially the middle of the hardest bones which are thinnest covered with muscles; as the ulna, tibia, and bones of the cranium. These gradually depart towards morning, being exasperated by the heat of the bed; and in the day totally depart. In some constitutions, however, though more rarely, they observe a different course; and never occur in the night, but through the day, when

the parts are exposed to the air. These pains are at last succeeded by some swelling of the part; when the pains become less acute, and are sometimes entirely removed: but this swelling proceeds very slowly; and, according to the different situations it occupies, it is distinguished by the several appellations of Node, Tophus, and Exostosis. In this state they frequently continue for years before matter is formed; and when it happens, it is generally, we observed, a fluid of a slimy nature, and very different from what is formed in other parts. Caries of the bone, at that part from which the matter issues, frequently succeeds: but at times, instead of this swelling of a part, though more rarely, a general sponginess of the bones, with a tendency to the production of fungus in scrophulous habits, comes to take place; forming a disease which has been termed by authors the Spina Ventosa. Nay, even in some very rare instances, a preternatural softness of the bones has occurred; and such an effect we always find

find enumerated by authors as attending this disease. Where a tendency to spontaneous fracture appears, it may perhaps be referred to this source.

CCCXII.

DURING the progress of these different stages of the constitutional disease described, certain affections attacking the organs of sense arise; the most common of which are Ophthalmia and Deafness.

CCCXIII.

THIS ophthalmia is of a chronic kind; and, though obstinate, is very different from that acute state which follows the retropulsion of gonorrhœa. It is confined more generally to the eye-lids than to the eye, and very much resembles that species peculiar to scrophula; neither does it possess the acute pain which distinguishes an active inflammation.

CCCXIV.

CCCXIV.

THE deafness in this disease is generally preceded by a noise or tinkling of the ears for some months. It then comes to be attended with violent pain, when suppuration takes place; or, without this, an ulcer slowly forms, producing erosion of the organ. It often, also, depends on an affection of the orifice of the Eustachian tube in the fauces.

CCCXV.

WHEN the constitutional disease has continued long, from the irritation to which the system has been for such a time subjected, an affection of some of the principal organs necessary to the support of life occurs in consequence of the general sympathy conspicuous between all parts of the system, which is increased by the state of disease; and thus hectic symptoms are induced. They are marked by loss of appetite, headach, slight rigors succeeded by hot fits; and where this affection is of the lungs,

lungs, it is attended with a teasing cough, and soon expectoration of matter. At other times this sympathetic affection is in the liver, consisting of a scirrhus in that organ; and, though more rarely, it sometimes also affects the groin or testicle with the same state, though this scirrhus has a greater tendency to depart by suppuration than in any other case.

CCCXVI.

THESE, then, are the principal symptoms of the constitutional disease, with the usual progress they observe till a state of hectic comes on; and that this state is the effect of sympathy, which may arise equally from any other long-continued irritating cause harassing the constitution, and is not to be ascribed, as is commonly done, to any absorption of matter into the system, is proved by this circumstance, that in its more early stage, where much absorption prevails, no hectic is produced.

CCCXVII.

CCCXVII.

THOUGH this is the usual course of the disease, yet in some, from peculiarity of general habit, the third circumstance formerly enumerated, a diversity at times arises, which it is also proper to take notice of; for in some rare cases it has been known to attack first the periosteum. In these cases, it may perhaps be referred to the head of retropulsion: for on the application of remedies, the symptoms there quickly abate, and an affection of the soft parts, as appears at first on its constitutional attack, supervenes; while, at the same time, it displays here an acuteness and violence no ways common to the progress of the constitutional disease.

CCCVIII.

WITH regard to the progress of the constitutional infection, the manner of its introduction may have some influence: for when the absorption takes place from bubo, its appearance is in general much earlier

earlier than when from chancre; and when from ulceration of the urethra, it is still later. It seems much connected with the degree of inflammation in the original part, by which the irritation of the contiguous branches of the lymphatic system is more excited to accelerate its progress.

CCCXIX.

AMONG the writers on this disease it has been a common opinion, that the constitutional malady of the present day is essentially different from what it appeared in the fifteenth century; and that it has gradually acquired, from its first propagation, an encreasing mildness. It would be happy indeed for mankind were this the case. We should not even despair of seeing the disease totally eradicated: but this we can never expect, while its action is so complicated, and its presence at times so difficult to detect. Menjot, a French author, who wrote in the 1697, has entered very warmly into this subject; and endeavours to support his remarks by

many historical observations. But both facts and analogy seem to oppose his opinion: for Dr Swediauer observes, that even at present, in many parts of Europe, amongst the poorer classes of people, he has observed it equally malignant with whatever has been described in the first accounts of it by authors, in situations where poverty and other causes of wretchedness added to the violence of its action. And with regard to other diseases, the consequence of specific infection, no alteration we know has taken place on them in respect of mildness, except where the constitution is previously rendered less susceptible of their influence. Hence we have every reason to conclude, that the malignity of its first appearance was owing to their unacquaintance with its nature, and also the state of living and want of refinement. In proof of these we find, that they were then more subject to cutaneous diseases, which only at present affect the lower classes; and want of cleanliness we observe at all times predisposes to diseases of
of

of a cachectic nature. To determine, however, this question, it is necessary we should be acquainted with the state of medical police then prevailing.

CCCXX.

FROM the view offered of the constitutional disease it appears, that the virus diffused through the system has its peculiar action displayed only on certain parts of it. This we find common to all diseases from a specific source; and the chief difference in such diseases which has directed their nosological arrangement is, that in one case fever is induced by the nature of their cause, which speedily terminates its effect; and that in a certain period, varying according to the peculiar action of the different poisons applied: while in the other, though fever is equally necessary to their termination, it does not occur properly as an effect of their action; and even before it is formed, the constitution often sinks under their progress

gress from the local effects they produce in the lesion of parts.

CCCXXI.

To establish, then, a general pathology in the cure of such diseases, two indications are naturally formed.

1. The first, to restrain that increased action of the system constituting fever when too violent, in order to prevent any hurtful consequences to those parts where no particular determination of the disease takes place. And,

2. The second, to excite, on the contrary, where it is deficient, the same increased action, in order to the termination of the disease.

The former applies properly to the exanthemata; the latter to such of the cachexiæ as arise from a specific cause.

CCCXXII.

FOR the cure, then, of the venereal disease, as belonging to the latter class, we contend, that a certain degree of fever, or tendency

tendency to inflammation, must be produced; that the calor febrilis mentioned by Boerhaave is absolutely necessary. This, however, requires certain limitations; and the want of due attention to this circumstance has rendered the practice so fluctuating in this disease.

CCCXXIII.

THE principle to which the success of this practice may be referred, is certain laws of the œconomy; in consequence of which different irritations display a natural opposition, counteracting for the most part each other; and when of a certain degree of strength, the system being only capable of bearing the operation of one at a time, where two are applied, the action of the stronger must render that of the weaker inert.

CCCXXIV.

IN this view, then, for the cure of the present disease, three indications may be laid down.

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1. To

1. To lessen the sensibility of the system to the irritation of the prevailing disease, or render the morbid action as weak as possible.

2. To excite such a degree of opposite irritation as constitutes that species of fever by which a separation of the parts affected, as in the exanthemata, and a decay of it may be produced. And,

3. To obviate those symptoms which may occasionally arise during the performance of the former, either from the irritability of habit or the nature of the remedies employed.

CCCXXV.

THE first of these indications has never before been pursued in the treatment of this disease, but its propriety late experiments have sufficiently evinced. It is well known to practitioners how often in the cure of the present disease they are disappointed; and that many cases, on the former modes of practice, they were obliged to dismiss, after a fruitless exhibition of
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of remedies, as incurable. Under these circumstances, nothing being left to the patient but to drag out a wretched life, the victim of disease, it was natural to attempt at least alleviating his miseries, and the painful sensations to which it subjected him. Opium was generally then had recourse to; and in one instance of this kind, as we are informed, where it was taken in very large quantities, and regularly continued, it not only procured the desired alleviation, but unexpectedly performed a cure. On this hint its introduction as an antisyphilitic remedy came to be founded; and though perhaps the authors of this practice have been too sanguine in their details of its success, yet, if exhibited in the manner the present indication points out, much advantage may be derived from its use. The venereal disease is allowed to consist in the irritation of a peculiar stimulus on certain parts. Whatever power, then, lessens this irritation, or renders the parts less susceptible of its influence, must contribute greatly, if not to cure the dis-

ease, at least to alleviate its symptoms, and to render the action of other remedies in subduing it more effectual. Opium is a medicine we are still very much unacquainted with; but, from theory, it seems well adapted to every stage of the present malady. During the operation of the virus, a certain active state of irritation we find prevail, occasioning in the parts affected either violent pain or the most uneasy sensations: the removal of this, then, is one great step towards the cure, and one particularly acceptable to patients. When the decay of the disease also takes place, or the specific action of the virus is subdued, a state of morbid irritability in the affected parts frequently supervenes; which, in some constitutions, continues the former affection, and increases the original lesion of surface induced. Here the success of opium has been greatly extolled. Its effects in such cases are,

Its abating the quickness of pulse, which it reduces sometimes so low as 50 in a minute; yet even this is not necessary
to

to the cure, though a sufficient proof of its sedative powers. In the parts themselves it occasions,

1. Ease and abatement of pain.
2. A sort of loosening of the surface of the ulcer, the hardness of its edges departing.
3. A more general relaxation of it, with the removal of any degree of remaining stricture, and the part as it were melting down. And,
4. A degree of corrugation then succeeds, which is the first appearance of healing; when the skin contracts gradually to the centre, diminishing the aperture of the fore.

CCCXXVI.

IN order to produce these effects, the opium requires to be used in considerable quantity. A grain and a half night and morning is the usual dose at the commencement of the course, which is gradually increased till in some cases it has gone the length of two drachms in the

Y 3

day;

day; and that without producing a tendency to sleep, or those other consequences which follow its exhibition in small doses. It is not to be concealed, however, that, exhibited in this way, some uneasy symptoms occasionally arise from its use; as indolence, tremor, headach, and costiveness: but these are generally soon removed by paying attention to the state of the *primæ viæ*, and preventing the residuum of the opium which is incapable of solution being retained for any time.

CCCXXVII.

FROM this view of the introduction of opium, the conclusions to be drawn from its use are, that though unequal, from the testimony of the latest writers, a very few cases only excepted, to the cure of the constitutional disease in its active state without the assistance of the specific remedy, its palliative powers are to be considered as highly useful. Previous, therefore, to commencing the specific course, according to the indication laid down, let

let it be employed till the symptoms of pain and irritation from the disease are somewhat abated, which will be generally accomplished in a few days; for in some its effects in this way are sudden, while in others they are more gradual. In exhibiting it, the rule is, to proceed till the pulse from being oppressed, weak, and frequent, become the reverse, free, full, and flow.

CCXXVIII.

IN this manner is the first indication to be performed; but the second, or the exciting an opposite irritation in the system, we are to consider always as the most important, while the two others are to be viewed rather in a secondary light.

CCCXXIX.

THAT the cure of the constitutional disease proceeds properly on this principle, we have every reason to infer.

1. From a consideration of the phenomena

mena attending the use of those substances fulfilling this indication.

2. From the occurrence of actual fever, or an inflammatory disease, having both suspended its progress and also cured this malady. And,

3. From the analogy pointed out with the class of exanthemata.

CCCXXX.

THE substances performing this indication are very various, and taken either from the vegetable or mineral kingdoms. In the warmer climates, the former have been preferred from their quicker operation and even superior success, as the accounts of their practice relate; while, in the colder climates, the latter only have been confided in, as better adapted to that torpor of constitution, and lessened irritability of habit, which forms a contrast to the former.

CCCXXXI.

CCCXXXI.

BUT to ascertain the reason of this preference, we may observe, that there are two ways of exciting fever; the one by substances exerting their action simply on the stomach on their first introduction, which, as the process of digestion alters their nature, departs, being merely temporary; the other, and more durable, by the introduction of such bodies as, not having their powers lessened by the action of the gastric fluids in the stomach, enter the circulation by absorption in this active state; and after continuing some time, in proportion to the torpor of the system allowing their retention, are expelled by some of the excretories.

CCCXXXII.

OF the first sort are most vegetables used in the cure of this disease. They are of the diaphoretic kind, of an acrid nature, which is considerably impaired in their dried state. Hence with us they prove frequently

frequently inert; and, where slow in their effect, their action is improved by the natives of these countries by their junction with some of the rubefacient tribe; while, in order to their success, a spare diet is found absolutely requisite, that their operation on the stomach may be more powerful; and it should be always empty for some time after their exhibition. They seem in this climate adapted to that irritability of constitution which often cannot bear the action of mercury even in its mildest state, or which is brought on by its excessive use without producing a proper decay of the disease. But since the use of mercury became so frequent, physicians have doubted of the cure of the disease by any other means: and the histories of early practice are now regarded as at least exaggerated, if not false. From the theory advanced on the subject, that such methods of cure proved effectual there can be no doubt, when other circumstances in the management of the patient

tient besides the simple exhibition of the remedies were attended to.

CCCXXXIII.

THE circumstances that we suppose necessary, in order to the success of vegetable remedies, are,

1. That a proper restriction in diet, as formerly recommended, be observed, that the operation of these remedies may be more extensively felt. Hence the antiphlogistic regimen is most favourable to their action.

2. That they be used as much as possible in a fresh state, as their active parts are liable to be impaired if too long kept.

3. That in their exhibition they be brought to produce sensible effects; and as the sensible effects of mercury, when most successful, are displayed by a soreness or tenderness of the mouth, those of the vegetable remedies, again, consist in a similar state of the urinary organs, or tendency to strangury.

4. The operation of sweating under the
use

use of vegetable remedies is improper as well as under that of mercury, as marking their action to be too violent; which, as it requires to be long continued, produces soon such a debility as is unfavourable to the complete removal of the disease.

5. Where the effect of vegetable remedies are too irritating, their action is to be repressed, as well as that of mercury, by their junction with opiates. Hence we find in the details of savage practice, that narcotics were frequently part of the composition of their prescriptions; which, if attended to, might have led sooner to the liberal use of opium in the venereal disease.

CCCXXXIV.

ONE of the chief remedies attended to by the Indians of North America is a species of Lobelia; and their manner of using it is this: Three or four of the fresh roots dried are boiled in decoction, and they are not very nice in what kind of vessel it is prepared. The patient begins to drink

this in the morning, and continues it as his usual beverage through the day, taking to the quantity of at least a quart, and being otherwise very abstemious. Its effects are generally to purge; and when it does this, the disease, they are of opinion, is sooner removed. It commonly cures in eight or ten days, and the sores are sprinkled with the dry powder of the geum nivale at the same time. Where it does not seem to have had much effect, they add to the decoction some of the ranunculus abortivus; and much nicety is required in adapting the proportion of it to the quantity of the decoction, as it is liable, if overdosed, to produce inflammation of the stomach, &c.

The success of the Lisbon diet-drink is well known. In Britain, however, it never has had the same success as in that country where it was originally prescribed. The climate has always been mentioned as in its favour; but even, independent of this, the authenticity of the receipts themselves is very much to be questioned,

ed, the success of the original inventor leading every one to give out his being in possession of it. From the best authority, the original receipt consisted solely of two articles, instead of the long farrago commonly given out for its composition. These are the *farfa* and Macedonian parsley root. Their proportions are small; and the chief success of the remedy is perhaps owing to the last ingredient, as the acrid principle of the former is so much involved in mucilage that it possesses but weak powers.

Besides these articles, the original practice of Hutten with the *guaiac* deserves our attention. This substance is possessed of a very active resin; and Mr Hunter mentions his having used it with success in the cure of this disease. It seems, however, to want in some degree that permanence of effect which distinguishes the action of mercury. When it is employed, it is best done in the form of the gum, joined with a proportion of opium to prevent diarrhoea, while

while it is also externally applied in the form of poultice.

CCCXXXV.

WE next proceed to consider the remedies of the mineral class; the action of which being more powerful than the former, requires rather, by different combinations, to be repressed, both from its violence on the stomach itself, and also on the circulation at large. This action, too, being unaffected by the powers of the stomach, and not requiring any favourable state of the organ to second its effect, does not need the same restriction in diet formerly enjoined as necessary to the success of the vegetable remedies.

CCCXXXVI.

THE mineral which has superseded all others with the present view, being termed the Specific for this disease, is mercury. It was condemned by the ancient physicians, and particularly by Galen, whose authority for long prevented its introduction

tion into medicine. The Arabians were the first who ventured to employ it; but, from regard to the opinion of the ancients, they used it only for external purposes in those diseases of the skin which were the offspring of their own climate. On the appearance of the venereal disease, from the ulcerations of its constitutional stage, they were soon led by analogy to its application here; and in using it, as Galen had considered it as a poison of a cold nature, every means of removing this by its junction with the different warm acrid substances in ointment was attempted. Hence the variety of receipts we find; and hence also the destructive effects which the early practice with it, from their ignorance of its nature, produced.

CCCXXXVII.

MANY theories have been formed to explain the action of mercury; and to establish it on the principles delivered, it is necessary we should examine the different opinions advanced, and afterwards point out

out the reasons of this preference it has deservedly attained in the cure of lues.

CCCXXXVIII.

THE principal theories on this subject may be referred to two heads; either those which ascribed the success of its action to the evacuations it produces, or to certain specific or antidotal powers it possesses explainable on chemical principles.

CCCXXXIX.

THE reasons urged in support of the former of these opinions are,

1. That in proportion to the quantity of salivation the venereal symptoms appear to remit.
2. That the stimulant preparations which produce such evacuations are the most successful. And,
3. That the lues is cured by other substances besides mercury exciting such evacuations.

CCCXL.

BUT, in opposition to these different arguments, it may be observed,

1. That the venereal disease often resists the most profuse salivation; and is often cured also without salivation, or any sensible discharge whatever.

2. Even the stimulant preparations, also, are not successful in those constitutions where they occasion immediately on their use such evacuations; and the great improvement of modern practice is to prevent, from their exhibition, such discharges.

3. Those other remedies employed possess another property besides evacuation; and though they cure, the common class of evacuants will not; which is a proof that it is not owing to their evacuating property.

4. A still stronger argument that offers is, that the venereal virus is attached only to particular parts where its action is displayed. Hence the diminution of the quantity

quantity of fluids in the system by the different excretories can have no effect on those particular parts diseased; and it is very happily observed by one author, were this the case, a clap might even be weeped away.

CCCXLI.

ANOTHER principal theory on the operation of mercury, is that which supposes it to act by a dissolution of the fluids, or peculiar species of putrefaction; and the proof of this they bring from the increased discharges which attend its use. In opposition to it, however, we find, that the blood possesses, during a mercurial course, a greater quantity of gluten than at any other time; and that it is merely the increase of circulation to glands, which, quickening the excretion, occasions it, from the shorter period of retention, to be thinner, and to possess from the inflammation excited in the gland a degree of acrimony; for thinness and quantity of secretion are always the effect of irritation on glands.

CCCXLII.

THE last theory to be taken notice of, is that which supposes the mercury to act by a certain antidotal power in rendering the virus inert; and is one of those relics of chemical theory which appears very dissonant to the rest of modern pathology. In support of this doctrine it is observed, that the mercury, in every case of its introduction, passes into the circulation; by this means it reaches the diseased parts, and, by its combination with the venereal virus inherent there, it reduces it to an inert state, similar to what happens in chemistry on the junction of an acid and an alkali, by which a neutral is produced. The arguments adduced in support of this opinion are,

1. The analogy between the venereal virus and other bodies in chemistry; which, however active, are by such combinations reduced to a mild state. And,
2. The success of the topical application
of

of mercury in curing venereal ulcers, which shows an immediate action on the part.

CCCXLIII.

BUT that these arguments, however specious, are merely hypothetical, may be concluded for the following reasons.

1. We observe, that there is a great difference between bodies subjected to the operations of chemistry, and those which are introduced into the human body and influenced by the laws of the œconomy. Hence we contend, that there are no remedies, the action of which, in a primary manner, affects the fluids; or, if affected, it is only in consequence of their action on the primary parts, or solids, that they remove disease, where the cause of it has once fully entered the system.

2. The topical application of mercury does not always cure venereal ulcers; and even when it does, that it depends on its stimulant powers we prove, because in many cases even of primary chancre where it fails, we are obliged to have recourse to

other minerals of a more stimulant nature, as ærugo æris, &c.

3. The internal use of mercury will not even prevent the effect of the virus, when absorbed, till the form of the disease or its topical effects actually take place.

4. The quantity of mercury should be the only circumstance necessary to the cure on the chemical theory; but we find particular preparations, even where the quantity is least, have a greater influence in curing the disease than others. And,

5. If the mercury acts on the fluids, or the virus inherent there, its application to the penis should, as a preventative, prevent actual infection, which is not the case; and here it can come more easily in contact with the virus than when existing in the fluids.

CCCXLIV.

FROM these arguments, then, we naturally infer, that it is not any specific powers in the remedies which cure the lues; it is the effects of the system itself, fimilar

similar to what occurs in small-pox and the other exanthemata ; and the effect of mercury is merely raising the system to that degree, or bringing into action certain peculiar laws of the œconomy, by the continued exercise of which, for a certain time, the separation of the disease, or the removal of the noxious cause, takes place. And, to confirm this doctrine, we shall consider it in two points of view.

1. In the state in which its action is exerted. And,

2. In its apparent effects on the body.

CCCXLV.

MOST metallic substances, in order to their action as medicines, require to undergo certain changes to give them activity. No substance has ever perhaps received greater changes for this purpose than mercury ; for, from the observations and experiments of Dr Saunders, it appears, that it never acts in its crude state ; but that, even where a simple trituration takes place for the sole purpose of division, a

change in some portion similar to that induced by calcination is effected. It is only this portion that acts, he contends, on its introduction into the body: And from this view, then, mercury, in its various forms as medicine, can only exist in a calcined or saline state; the former, as performed by simple triture when it is partial, or exposure to heat and air in the common chemical process; the latter, as dissolved by various acids, or again precipitated from them by different alkalis. In all these states mercury is distinguished more or less by its acrimony proving in the body an extraneous irritation to the animal fibre, the justice of which is displayed by its effects.

CCCXLVI.

THE effects of mercury introduced into the system are,

1. A quickened state of pulse; and, during a mercurial course, we seldom find it under 90. Nay, it is expressly recommended by Sir William Fordyce, that
mercury

mercury should be given so as to produce a hardness, fulness, and frequency of pulse, or that which marks the inflammatory diathesis; and wherever, therefore, under the use of mercury, the pulse is quick, soft, and weak, as is often found in scrophulous constitutions, particularly where the mercury has been pushed far, the proper mercurial fever is not induced, and the remedy will not be successful.

2. An increase of the several excretions, though the particular ones depend on the manner of its exhibition.

3. A buff-coat is observable on the blood during its use, similar to what occurs under that of other stimulants. And,

4. Its effects in the cure of lues appear often in proportion to its stimulant powers. Thus, half a grain of corrosive sublimate will frequently have more success than an ounce or two introduced by unction.

CCCXLVII.

WHATEVER peculiarity, then, there may be in the action of mercury, we find

a state of general irritation produced by it, which is connected with and essential to the cure. This is displayed also by the diseased parts themselves acquiring an increased vascular appearance; and, proceeding on this principle, the circumstances requiring attention for the success of our practice are,

1. To prevent this tendency rising to actual inflammation. And,
2. To continue it no longer than till the decay of the disease is accomplished.

Experience has daily shown the necessity for attention to the first of these; and hence has arisen the variety of modes of practice since the introduction of mercury into use.

CCCXLVIII.

THE peculiarity in the action of mercury, we may remark, depends solely on its power of penetrating, and at the same time the permanence of its action. By the first of these it is more easily than any other substance, determined to those minute

nute parts which form the seat of the disease, while the operation of those other substances employed in the cure of this malady is confined principally to the stomach, being therefore less extensive. Its permanence, again, is sufficiently ascertained by what is observable every day in practice; for the mercurial habit is found to prevail for months after the discontinuance of the course.

CCCXLIX.

FROM this distinguishing characteristic of mercury, its power of penetrating, as every part of the body where a lymphatic structure prevails is capable of giving entrance to its particles, the several ways in which its reception into the system is effected, as practised at different periods, with their relative advantages, merit consideration. These are either by its application to a porous surface, a secreting, or organic.

CCCL.

CCCL.

THE first of these has been the most generally employed, termed the Way by Frictions; and, in order to facilitate its introduction, certain preparatory steps, consisting in rendering the skin as freely perspirable as possible, and relaxed, have been recommended. In this way the stomach is not affected, and the state of health in that organ thus preserved. But from its inconvenience in the application, the patient himself generally soon tiring, and the delicacy or irritability of surface afterwards induced by it, rendering it easily susceptible of impressions from changes of atmosphere, it begins now to be laid aside; and the parts preferred for its application are generally the extremities, particularly the inside of the thigh or leg. It is to be carefully rubbed in by the hand of the patient, or an assistant, whose hands, to prevent absorption, are covered with leather; and, if left to choice, it should be done in the morning, as the absorbents then

then are in a more active state. The surface to which it is applied should be regularly changed, as the absorbents seem to tire, or carefully cleaned, before a second application ; and it is more difficult to introduce the same quantity as at first on a second or third repetition.

CCCLI.

THE next method of its application, or its introduction by a secreting surface, is less common, and of very late discovery. It was first recommended by Mr Clare of London ; and Mr Cruikshank has very ably supported the propriety of his idea. The situation chosen for its application is the inside of the lips and cheek, and the surface of the gums ; and this situation is perhaps better adapted for the external introduction of mercury than any other in the body,

1. Because the saliva appears, from the experiments of Mr Plenck, the best solvent of mercury next to mucus. And,

2. Because the absorbents here, from the
constant

constant irritation of the salivary fluid, possess a highly active state.

The advantages of this method are, that the primæ viæ are not affected by the mercury, which, in irritable habits, occasions the most uneasy symptoms; and where even some part of it gets into the stomach, its application is so gradual, and its previous solution so complete, as to hinder its hurtful effects. Its introduction into the system is also much more expeditious in this way, and the inconveniences which attend the use of frictions are entirely avoided. Mr Cruikshank has thrown out a conjecture, though we cannot perceive with what justice the remark is made, that the affection of the mouth is at all times a chief circumstance requisite for the cure; that the quantity of mercury present in the system is a matter of little importance; and that there is a kind of connection between the state of the salivary glands and the venereal irritation; in consequence of which the inflaming of these glands to a certain degree, and for a

certain period, is sufficient to cure the disease. Ingenious, however, as this idea is, we are sorry to say it is merely hypothetical; and were it the case, the superiority of the present mode of introduction would be incontrovertible. But from the theory of the disease we have hitherto endeavoured to support, a very opposite opinion comes to be formed; and the introduction of mercury into the system at large, independent of its effect here, is found also requisite. Nay, the venereal symptoms often do not abate under a proper salivation, which shows a sufficient irritation of these glands: and it is the activity of the mercury in the general habit, not simply here, on which we are to depend; for even, at times, the disease is cured without any affection of this part. The success, however, of its introduction here will much depend,

1. On the minute division of the particles of mercury in the preparation employed; which, at the same time, must not be too stimulant from the sensibility
of

of the surface to which it is applied.
And,

2. On the complete solution it undergoes in the saliva facilitating its absorption.

This last circumstance requires much attention on the part of the patient; for unless time is allowed for its complete solution, and its absorption assisted by the friction of the parts, it cannot be supposed to succeed so quickly as where these rules are observed. A comparison has been made by Mr Cruikshank between the activity of mercury introduced in this way and that by frictions from the external surface; and he finds three grains of the preparation here is equal in its effects to no less than 45 of the ointment. The preparations preferred for it are the calomel, or mercurius cinereus; and in using them, a single grain should be employed at once, and repeated three or four times, that a more gradual absorption of it may take place than where the dose is administered at once.

CCCLII.

THE last method of the introduction of mercury into the system, which we have termed its Application to an Organic Surface, is now the most generally practised: and that we properly made a distinction between it and the former method is ascertained by this, that the stomach possesses a peculiar action on all bodies; and we find, that it even resists the effects of the venereal virus itself. Hence we conclude, that it must have an effect on the state of the mercury introduced, though we cannot easily detect it. This method, however, possesses a number of advantages over the others, though it appears rather slower in its operation than the second. It admits also the use of the more active preparations, which the other surfaces cannot safely bear; and it prevents also, where properly employed, which is of material consequence, the detection of the disease. The first introduction of mercury into practice in this way was in the simple state

A a

of

of trituration under the name of Barbarossa's Pills; a preparation still retained. But chemistry then coming into vogue, soon supplied a number of other more active forms of the mineral for its internal exhibition. To none are we more indebted for the first attempts in this way than the noted Paracelsus, who may be considered here in some measure as the founder of the chemical sect, and by a happy boldness in his practice rendered the use of mercury more general than before his time. Succeeding empirics have taken advantage of this circumstance which chemistry afforded, in concealing it under different names, and making it pass for a new medicine. It was the bad effects which arose from the practice of these empirics with their chemical preparations that raised a prejudice in every case against the application of mercury; which still subsists so strongly as to occasion its expulsion from practice by public edict in many parts of Italy, and renders with us every attempt that pretends to the cure of
this

this disease without the assistance of mercury successful.

CCCLIII.

WE have thus considered the different ways in which mercury is introduced into the system, and it will be proper next to hazard a few remarks on the state in which it exists when introduced. Many disputes prevail on this subject; and whether remaining actually in the same form in which it enters, or receiving a peculiar saline state, the effect of solution from its combination with the gastric and other parts of the animal fluids, is a matter of some difficulty to determine.

Facts are brought equally on both sides; but that it receives a change in its form, though not of its nature, as mercury, we have reason to believe from the following facts.

1. Mercury is tasted in the different fluids, particularly those subjected from their situation to the organ of taste.

A a 2

2. Gold

2. Gold has been tinged by the saliva of a person under its use.

3. The saline preparations, where it is already in a state of solution, are the most active.

4. Those preparations distinguished by a minuteness of particles, without any saline form, by favouring solubility, are in their action next to the saline. And,

5. Some experiments would seem to show, that the saline preparations are merely deprived of their acid, and that no farther change takes place.

CCCLIV.

HENCE we conclude, that mercury receives a state of solution in the animal fluids without any farther alteration; that some of them, as the gastric fluids and saliva, are more capable of producing this solution than the others. Thus the form of mercury comes indeed to be changed, tho' the principle on which its action depends is preserved; and its distinguishing characteristic, therefore, we contend, to be a stimulus

stimulus of a penetrating and at the same time permanent nature.

CCCLV.

WE have thus examined the different methods of introducing mercury into the system; and are next led to discover the different views which authors have had in this introduction, or the various modes of practice with mercury in conducting the cure of lues from its first appearance in Europe to the present period.

CCCLVI.

THE use, then, of this mineral began, as formerly observed, from the external surface: chemistry had not then afforded any preparation fit for internal use; and the method of applying it was equally coarse with the gross state in which the medicine was then used. As we are informed by Boerhaave in the collection of ancient authors, published under the title of *Aphrodisiacus*, the patient was rubbed from head to foot; and that with such a

A a 3

quantity

quantity of the ointment, that had it been active, and the frictions with it properly conducted, as in more modern times, it must have infallibly killed him. At any rate, its effects were so considerable as to induce the most profuse discharges; and under these the patient often sunk, or his constitution became after them so impaired, as to drag out a wretched existence, the victim of his physician's ignorance. It was in this state of practice that Hutten first introduced the guaiac; and the torments attending the use of mercury gave it such a preference, as to plead every excuse for the exaggerated accounts of its success which have surprised so much the authors of the present day. As the best proof, however, of the truth of its precarious operation, we find the practice with mercury still continued; and experience, at least, led them to a more moderate application of it than the first practitioners imagined necessary to its success.

CCCLVII.

THIS improvement on the original practice we term the Method by Salivation; and the manner of conducting it among the French, by whom it has been most generally followed, was this: The patient was prepared for undergoing it by previous venesection, and an evacuation of the intestines, the skin being rendered at the same time freely perspirable by the use of the warm-bath. The frictions were then begun, a set of linen being provided for the purpose; and first made on the legs, from 3ii. to 3fs. of the liniment being consumed at a time. After a day's intermission, during which they frequently purged the patient, the same practice was renewed to the thighs, shifting the linen imbued with the medicine to these several parts. From the thighs they proceeded in course to the superior extremities, and gradually occupied every part of the surface, except the head and breast. A copious salivary discharge soon came on; and as

A a 4

this

this they reckoned necessary to the cure, the rules for conducting it were, That it should not exceed four or six pounds a-day, and that the patient should lie upon one side to promote its evacuation. During this course, which generally lasted from six weeks to two months, or at least a fortnight, after the disappearance of the venereal symptoms, the patient was to be kept on a low regimen, and the room heated to at least 60 degrees. When finished, a gradual return to the external air was only permitted; and the use of the warm bath and sudorifics for some time strictly continued.

CCCLVIII.

THE inconveniences of this mode of practice were so apparent as to render it soon laid aside, and it seemed but a very coarse refinement on the practice of the first authors. In its place a new method was recommended, though it did not become very general, and was adopted only by a few practitioners; this was the practice

tice by fumigation. It consisted in covering the patient completely, except his head, and exposing him naked to the burning fumes of cinnabar, or mercury combined with turpentine, and the addition of other perfumes. He was then removed to his bed, and kept warm; so that a most profuse perspiration came to be induced, which reduced him to the same state of weakness as the practice of salivation, while at the same time it failed often of effecting a cure. It is at present still employed topically for the removal of certain local effects which resist the usual methods of treatment. Some years ago, an attempt was made to revive it in France in an improved way, so that the danger of the former method might be avoided. This was by preparing the mercury in such a manner that nothing extraneous might appear in its composition; and of course the danger of fumes impregnated with arsenical and other effluvia, with which the mineral in its crude state in which it was formerly used abounded, might be shunned.

shunned. But though deserving approbation, it by no means became general; and its merit rested solely with the author Dr Lonette, as it was found no way superior to the other methods, and inconvenient in the application.

CCCLIX.

INSTEAD, therefore, of this practice, which was often attended with danger, as many venereal symptoms were observed to resist the use of frictions inducing salivation, some practitioners began to be of opinion, that the discharge was not necessary to the cure; and, of course, that if employed so as not to occasion it, the application of the remedy might be still successful. This opinion was first entertained by the Montpelier physicians; and is termed the Method by Extinction, proceeding on the principle of mercury specifically eradicating the disease. The manner of conducting it, is by a gentle course of frictions, so as to produce no sensible operation; the intervals between the rubbings

blings being considerable, and determined with regard to their frequency solely by the state of constitution or irritability of the patient; and by this method the disease is generally removed in between 18 and 25 days, the usual term by which in the common way salivation takes place. Nor in this case is the usual preparation, as employed before attempting salivation, necessary, nor is the health of the patient impaired by the great discharges which the former method occasions. Observation naturally led to this mode of practice; for it was remarked, that the venereal symptoms begin to disappear under the use of mercury before salivation is induced. Obstinate cases, also, which have resisted salivation, generally yield to mercury in small quantities, given so as not to excite any discharge; and the best practitioners have always found it advisable, in delicate constitutions, or in those who possess a scrophulous or scorbutic taint, to pursue the same plan. If, therefore, curing in these cases, it was contended, why should

should it be employed otherwise in stronger constitutions?

CCCLX.

BUT some physicians were of opinion, that by this method a sufficient quantity of mercury was not introduced into the system; and as they judged also a certain quantity of discharge still necessary to the cure, and wished to avoid the inconveniences of salivation, another method was attempted, which we have styled the Method by Derivation. It was first proposed by Dr Default, a French physician; and it consisted in preventing the irritation of the salivary glands, by keeping up a constant discharge from the intestines. The patient was prepared, as in the former method, by the warm bath, and every means of relaxing the skin; the virus being entangled, according to his opinion, in the watery fluids, and the relaxation, therefore, of the body being necessary to admit more readily their discharge. He then began by gentle laxatives to produce
an

an irritability of the intestines; after which the frictions were administered in the same number, and even in greater quantity, than where a salivation is excited: but attention was here paid that a diarrhœa should be kept up in proportion to the quantity of mercury introduced; and if not coming on spontaneously by the former preparation, repeated doses of jalap were employed to effect it. The reasons urged in favour of this practice were,

1. That you can thus secure the patient from those uneasy and often dangerous symptoms that attend salivation; the inflammation of these parts from this cause often proving fatal.

2. Pain is thus avoided, by the cure being much quicker than by the method of salivation, and the patient is allowed the proper use of those parts on which sustenance depends.

3. A habitual salivation is thus prevented, which is frequently induced by a mercurial course on the old plan.

In objection, however, to this method,
it

it must be remarked, that from the very nature of the disease, the retention of the mercury, or the keeping up that state of body which mercury produces, is necessary to the cure. Wherever, therefore, mercury is forced off in this way as soon as entering the system, either so much must remain behind as is necessary to produce this state, or no cure will take place; and if there remain so much, there is no occasion to carry it farther to produce any evacuation.

CCCLXI.

THESE, then, are the different modes of practice founded on the introduction of mercury from a porous or external surface. The most preferable of them is that by extinction; and it is still in use among modern practitioners, being recommended so lately as even by the authority of Dr Cullen. It prevails very much at Montpellier; where they have made an addition to it, by enjoining the use of the warm bath for 20 or 30 times before the application

cation of the mercury, without increasing the quantity they usually employed by this method; and by this preparation they consider the success of the remedy as greater. In that climate, indeed, it is less liable to be hurtful.

CCCLXII.

THE last mode of practice, where the mercury is most commonly introduced from a secreting or organic surface instead of an external, may be termed, according to the theory proposed, the Practice by Irritation. But, before considering it, it will be proper to examine the means of fulfilling the third general indication in the cure of lues; which is, to obviate those symptoms that arise during the performance of the former, either from the irritability of habit, or the nature of the remedies employed; and as this is effected chiefly by different ways of combining mercury, the different compositions of authors to answer these purposes merit attention,

attention, which are most easily learned by the formation of a table.

CCCLXIII.

TABLE OF MERCURY.

EVERY table of this kind may, with a view to practice, be properly divided into two parts, a Chemical and Medical; the former, arranging the subject according to the various changes, or, as we call them, preparations, it may undergo; the latter, marking the various combinations that may be made to modify or influence the action of its chemical state in the human body.

I. CHEMICAL*.

Mercury in its native form,

Hydrargyrus Purificatus, L. E.

Is absolutely inert, and becomes active only in a minutely divided, a calcined, or a saline state.

1. It is minutely divided by,

a By agitation, as in Boerhaave's Experiments.

b By

* For the arrangement of the Chemical part the author is indebted to Dr Cullen.

b By triture with various viscids; whence the
 Hydrargyrus Gummosus,
 Mellitus,
 Saccharatus,
 Alcalifatus,
 Unguinofus,
 Terebinthinatus.

c By triture, fusion, or sublimation with sulphur
 or crude antimony; whence
 Æthiops mineralis,
 Cinnabaris factitia,
 Æthiops Antimonialis,
 Cinnabaris Antimonii.

2. It is calcined by being exposed to heat and air;
 whence
 Mercurius præcipitatus per se.

3. It is brought into a saline state,

A By solution in various acids; as

a By the Muriatic,
 Mercurius sublimatus corrosivus,
 Calomelas.

b By the Nitrous,
 Solutio Mercurii, E.
 Mercurius præcipitatus ruber.

B b

c By

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c By the Vitriolic,
Turpethum Minerale.

d By the acid of Tartar,
Terra foliata Mercurii, *Preßlävin*.

e By the Acetous acid,
Pilulæ five Trageæ, *Keyferi*.

f By the acid of Phosphorus, &c.

B By precipitation from acids by various alkalis.

a From the Muriatic,
Mercurius præcipitatus albus.

b From the Nitrous, by Vegetable Alkali,
Mercurius præcipitatus fuscus.

c From the Nitrous, by fossil Alkali,
Mercurius præcipitatus dulcis Scheelii.

d From the Nitrous, by volatile Alkali,
Pulvis cinereus.

e From the Muriatic and Tartarous Acids, by Vegetable Alkali.
Pulvis Argenteus.

C By

C By solution with compound substances.

a Muriated Mercury with copper,
Mercurius præcipitatus viridis.

b Nitrated Mercury with Sulphur,
Mercurius præcipitatus niger.

c Nitrated Mercury with Tartar,
Pulvis Constantinus.

d Nitrated Mercury with recent Urine,
Rosa mineralis.

e Nitrated Mercury with copper,
Mercurius præcipitatus viridis.

II. MEDICAL PART.

Mercury, in order to its operation on the body, whatever form it receives, must be absorbed; and hence its various combinations are formed, either with a view to facilitate the absorption itself, or to influence the powers of the remedy after being absorbed; on which principles the following arrangement of Mercurial Medicines may be made.

1. To facilitate its introduction into surfaces,

a Into the external surface :

Which is performed by its various union with
Oils Natural and Essential ; as in the
Unguentum Cœruleum, Fort. et Mit.
Neapolitanum,
Mercuriale, *Drs Cockburn*,
Ceratum Mercuriale,
Emplastrum Mercuriale, &c.

b Into the internal surface, or Primæ Viæ :

Which is effected by its triture either with bodies of a gritty or viscid nature increasing the minuteness of its division ; as in the
Præparata Varia Gummofa, *Domini Plenck*,
Pil. Mercur. Commun. E.
Keyferi,
Æthiop.
Bellosti,
Bolus Cœruleus,
Pil. Mercur. L.

2. To lessen its action on surfaces ;

Which depends on its admixture with viscid bodies, or dilution in fluids.

A On the external surface or Skin in a morbid state :

as,

In its union with Oils, or Solution in watery fluids ; the forms of which are,

Injectio

Injectio mercurialis,
 Unguentum citrinum,
 e Mercurio præcipitat.
 Calomelan, *Dr Saunders*,
 Solutio aquosa, *Van Swieten*,
 Lotio mercurialis, *Swediauer*,
 Aqua phagedenica,
 aluminosa.

B On the internal surface, or *Primæ Viæ*: as,

a In its combination with the former viscid bodies increasing the minuteness of its division, where their proportions occasion the Mercury to be very widely diffused *; and to this head belong also the

Rob. antisiphilitique,
 Syrup. vegetal. de Bellet,
 de Velnot.

b Its diffusion in fluids; as in the
 Solutio spirituosa, *Van Swieten*,
 Essentia mercurialis, *Charas*,
 Decocta varia lignorum, cum mercurio.

3. To lessen its action on the system at large,

B b 3

a By

* It is observed by Mr André in a late publication, that Mr Plenck's preparation often separates in the stomach, and then passes off by stool; a proof of the propriety of this division we have made.

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a By diminishing sensibility: as

In its junction with Sedatives, particularly
Opium and Camphor; the forms of which
are,

Pil. e Mercur. Calcinat. Anodyn.

Misfaubin.

Camphorat. cum Turpeth. Mineral.

Ung. Camphorat. Despatureaux.

b By directly obviating irritability; as

In its use along with Tonics or Essential Oils.

c By reducing the Mercury to a more inert state,

1. By its combination with other minerals; as
in the

Mercury divided by Sulphur and crude Antimony,
(*vide* Chemical part.)

The prescriptions of which are,

Pulvis Æthiopicus,

Antilyffus Sinensis,

Æthiops Antimonialis,

Bolus Cinnabarinus.

2. By altering the quantity of particular ingredients, giving it a Saline form, and thus diminishing the activity of its Saline state: as

In the preparations from the

Calomel; which are

Pil. Plummeri,

Panacea Mercurii.

From,

From the Nitrated Mercury Calcined.

The milder forms of which are,

Mercurius Corallinus,

Pulvis Principis,

Panacea Mercurii Rubra.

N. B. It is not intended in this table to give all the forms of Mercurial Prescriptions employed, but only to note so many of the common preparations as may illustrate the arrangement chosen.

CCCLXIV.

IN this manner we endeavour to arrange the different preparations of mercury with a medical view; and before leaving the subject, it will be proper to examine some of the principal of them which have been employed in the cure of this disease.

CCCLXV.

THE common preparation of the blue pill has been, and still continues to be, very generally employed. It was the first form of the remedy for internal use; and in its composition at that period, two circumstances were attended to which are now entirely discarded.

B b 4

I. To

1. To combine it with cathartics, by which the virus corrected by the mercury might be expelled from the body. And,
2. With nervines, by which the mercury itself might not injure the constitution.

In this preparation, however, from the experiments of Dr Saunders already mentioned, as part only of the mineral is in an active state, the quantity introduced into the system cannot be depended on.

Mr Plenck's preparations may be considered as a very good improvement on the former, both as the mercury is previously rubbed with a gritty substance (the gum Arabic in its dry form), by which more of it will pass into an active state, and also as it is exhibited in a more soluble form; but it unluckily frequently separates in the stomach, and the greater part of it then passes off by stool.

The same may be said of the mercurius saccharatus and alkalifatus; and the other methods of triturating it with conserves, the efficacy of which proceeds on the same principle with those of Mr Plenck.

The

The different combinations of mercury with other minerals are seldom used for the cure of venereal complaints at present. When employed, it is chiefly in cutaneous diseases, from their supposed connection at times with this specific cause; and as this combination gives the mercury a natural determination to the surface, an indication always pointed at in such affections, at the time of Paracelsus the preparations of this kind received from him and his followers the particular appellation of Diaphoretic.

The mercurius calcinatus is a preparation that has been remarked to possess a great deal of acrimony, and is very apt to affect the bowels. At present, it is in great repute in London, and considered as one of the most successful. One grain is generally reckoned a sufficient dose; though, even when given in the smallest quantity, from its tendency to affect the bowels, it requires to be guarded with opium. It is this preparation which formed the basis of Misaubin's pill.

CCCLXVI.

CCCLXVI.

THIS, then, is all we have to remark on the first division of the chemical part of our Table; and we come next to enter upon the more active preparations which form its second part, or those of a saline nature. For long after the appearance of the venereal disease in Europe, there were only three methods of treating it. The first was by frictions; the second, by guaiac decoctions; and the third, by fumigations with cinnabar. Of these, however, the most general was by frictions; till chemistry coming into repute, such a rage for alteration took place, that none but saline preparations came to be employed; and by this form the mineral was supposed to have its virtues increased, or to be deprived of its supposed noxious qualities. From the effect, however, of these preparations, or rather the ignorance of physicians in their proper application, they have now come to be discarded, except a very few; the principal of which

which is the corrosive sublimate, forming at present the basis of many quack remedies in great repute. It was first proposed by Dr Herman of Leyden to be used in the cure of gonorrhœa. His dose was gr. ii. formed into a pill with liquorice; and he remarks, which was indeed necessary from the largeness of the dose, that its use should be confined to robust constitutions. Before his time, however, it had begun to be employed in London for the same complaint by an empiric, as we are informed by Dr Turner, who gave it dissolved in spirit of wine. And his method was, to dissolve ʒi. of the preparation in ʒi. of spirit; and of this solution he gave his patient 10, 12, or 15 drops, in a quantity of barley-water, or any light decoction, so that his patient had but one-fifth of a grain for a dose; a practice much more judicious than Dr Herman's. Dr Boerhaave next recommended this preparation; and, in his Chemistry, observed upon it, that gr. i. dissolved in ʒi. of any distilled water,

proved an excellent cosmetic; ʒi. of which solution, taken twice or thrice a-day, and softened with syrup of violets, would do wonders in the removal of many incurable maladies; and by this practice $\frac{1}{8}$ gr. made the usual dose every day. But this remedy, so strongly recommended by Boerhaave, was first brought into regular practice by his disciple Van Swieten, and its success established in the Lock Hospital at Vienna, by his recommendation of it to Dr Locher physician to this charity, who has published some very excellent practical observations on its use. It was next carried to France: but its success there was not equal to what happened at Vienna; and the French, indeed, have never been fond of employing this preparation. In Britain, the first introduction of it into practice was owing to the late Sir John Pringle. It was by him recommended to the notice of the army surgeons, and accounts of its success published in the Medical Transactions; from which it appears a medicine of very quick operation in the
removal

removal of venereal symptoms, being therefore well adapted to military practice. The method of exhibiting it recommended by Van Swieten was simply this: Twelve grains of the preparation were by him put into a mattrafs with two pounds of ptyfan, submitting it to a gentle heat, and frequently fhaking it, till the preparation came to be diffolved. Of this a table-spoonful was to be taken every morning fasting for 25 or 30 days; so that one grain came to be daily used; at the end of which period a cure was generally effected. But to this method of Van Swieten some objections may be made.

1. The diffusion of it, in such a quantity of watery fluid, does not allow its stay in the system to be sufficiently permanent. Hence we find the excretions of sweat and urine most frequently produced by it.

2. From its strong stimulant powers, it possesses always a tendency to act in this way; which should rather, by the form of its exhibition, be repressed. Some au-

thors therefore have very properly recommended, though it seems merely with the view of lessening its irritation on the primæ viæ, its use in a solid form. On this principle it was employed by Mr Petit of Paris in the form of pills, giving to the quantity of half a grain a-day. In the same form Dr Gairdner of Edinburgh has likewise used it, finding those inconveniences avoided which attend its operation in a diffused state. It was from the original manner then of using this preparation that physicians remarked it seldom effected a complete cure, except in recent and slight cases, from wanting that permanence of action or durability of stimulus on which the specific success of mercury in the extinction of this disease depends. Hence, in modern practice, they seldom trust to it alone; it being common to employ it either in the commencement of the cure, from its quick abatement of venereal symptoms, its distinguishing characteristic; or when frictions have been employed, so that towards

wards the termination of the mercurial course, the absorbents of the surface tire of taking up the necessary quantity of the remedy, it is given suspended in some of the alterative decoctions in small quantity in order to complete the cure. It is this preparation which forms the basis, as we observed, of the Maredant's drops in so much repute in London, of the rob. anti-siphilitique and vegetable syrup of Velnot in France; and wherever it is used in a fluid form, a proportion of sal ammoniac should be joined, which increases the quantity of it receiving solution.

But, besides the internal use of this preparation, attempts have been made to introduce it also from an external surface. The first of these, termed the Lavemens Mercurielles, was employed in France with a view to supersede the use of mercurial frictions. It consisted in immersing the feet in a strong solution of corrosive, and retaining them there for a considerable time, so that a proportion of it might be absorbed without affecting the primæ viæ.

But

But the success of this practice, though effectual in some cases, could not always be depended on. A treatise has been also published some time ago by a professor at Naples, recommending its introduction by frictions. The situation chosen for this purpose is the soles of the feet, the skin being there thickest; and he directs that ʒi. of the preparation be reduced to a very fine powder, then mixed with ʒi. of axunge, which is to be triturated for the space of 12 hours, so as to produce an intimate union, ʒii. of which are to be rubbed in each night; and he remarks, that in this way he has found it cure the most obstinate cases, which resisted every other remedy.

The next saline preparation in repute is calomel. It is much milder, in consequence of the mode of its preparation, than the corrosive; and while the latter shows a natural tendency to the skin and kidneys, it, on the contrary, always affects the bowels. It is the preparation in most esteem at Edinburgh next to the blue pill; but,

but, from its particular tendency, it requires to be exhibited in small doses, except when it is meant to act solely as a mercurial purge. This tendency, however, is much lessened by joining it with soap. It has been generally supposed best adapted to recent cases, where there prevails some degree of active inflammation; for by its purgative property it operates here in some measure as an antiphlogistic: but there is such a variety in the preparation of this remedy in different countries, that it cannot be depended on.

CCCLXVII.

THE saline preparations with the nitrous acid come next in order.

Dr Ward's white-drop, like every other quack medicine, we are little acquainted with; but from the reputation of its inventor, by whom it was very generally employed, we may entertain some idea of its success.

Another medicine similar to it is La Motte's, formerly in much repute at Paris.

It consists of a solution of the red precipitate, which gives it a bright purple colour; and a few drops of this, taken in a quantity of any diluent liquor, were generally reckoned a sufficient dose.

Charas's solution is a less active medicine than either of the former; being the common nitrous preparation diluted with 24 times its weight of water. By this dilution a great part of the mercury precipitates; but its author observes, that so much still remains, and in that highly divided state, as to prove a useful medicine.

The vegetable syrup of Bellet was at first in great esteem in France, where more quack preparations have appeared than any where else; but since its composition has been guessed at, like most other medicines of the kind, its infallibility has in a great measure vanished. It consists, according to Dr Swediauer, of nitrous mercury, precipitated by fixed vegetable alkali, and afterwards dissolved in vitriolic æther, when it is blended with some agreeable syrup;
 so

so that, from its composition, it must possess very active powers, though we cannot speak of the practice with it from experience.

In the unguentum citrinum, the activity of the preparation is weakened by its union with an oily matter blunting its natural causticity. It forms a very powerful remedy in cases of venereal eruptions, where the disease unexpectedly breaks out from some remains in the habit, discovering itself only at one particular spot; as an eruption of the furfuraceous kind about the roots of the hair, &c. But it is seldom applied to common venereal ulcerations; and even when used in these eruptive cases, it requires to be still farther weakened by the addition of more oily matter than what usually enters its composition. Thus Dr Cullen recommends it to be rubbed down with double its quantity of hog's lard.

CCCLXVIII.

THE next preparations, according to our arrangement, are those with the vitriolic acid.

The turpeth mineral was a medicine formerly of much repute; but, from its violent effects on the primæ viæ, it is now seldom used, except where it is meant to act as a mercurial emetic. Where it is employed, it should be in very small doses; and even then, its powers should be moderated by the addition of opium. It is pretended by some authors to be more effectual than any other preparation of mercury in obstinate venereal eruptions of the skin.

CCCLXIX.

THE saline preparations hitherto enumerated are those formed by solution in the mineral acids. But practitioners, wishing to lessen the corrosive nature of these preparations, which they ascribed to the virulence of the acids forming them, instead

instead of the mineral, attempted to form them by solution in acids of a weaker kind; by which their caustic effects might be weakened, and their success as mercurials still preserved. On this principle a number of preparations were composed; the principal of which, deserving attention, are, Keyser's pill, and the terra foliata of Dr Prellavin.

CCCLXX.

THE Keyser's pill is formed by the solution of mercury in the acetous acid; previous to which, to render its solution more complete, by freeing it of any extraneous matter, it undergoes repeated triturations, and is passed through a watery fluid: and after having finished the several preparatory processes, it is formed with manna, or any other saccharine substance, into pills. Their introduction into France met at first with considerable opposition. An opportunity being given for their administration in the Bicetre by the surgeon of that institution, they were not attended

with that success which the accounts of their inventor led practitioners to expect. To judge, however, in an unprejudiced manner of Keyser's pill, we may remark,

1. That it is a saline preparation; consequently it must possess the same activity with any preparation of the mineral in that state.

2. It is carefully freed from any extraneous matter before its saline state is formed. And,

3. The acid with which it is combined is of a weaker nature than most others.

On these accounts it must be a medicine of considerable efficacy; though the enumeration of its advantages over frictions, the common method employed in France, is by no means a just way of determining its real merit, as all the other internal preparations that do not act with too much violence possess the same advantages. It has seldom been used in this country, as the process of preparing it previous to its solution is too tedious.

CCCLXXI.

THE Terra Foliated, so termed by Dr Preßlavin the inventor, proceeds on the same principle with the former, being a combination of mercury with cream of tartar. The views of the author in forming this preparation were,

1. That it should possess the same advantages with the other preparations with the weaker acids, in being used with more safety than the strong saline compositions, and being at the same time sufficiently active to effect a cure. And,

2. That the body giving it the saline state should possess stronger powers of solubility than any other similar body of the same strength, and thus that more real mercury might enter into the composition of the preparation; the latter being on this account, according to common opinion, more successful in the cure.

For these reasons it deserves to be perhaps preferred to Keyser's pill; but the difficulty of forming such preparations has

been one great reason that they have never come into general practice; and their merit, therefore, has commonly rested with the original inventors; to whom the strictest credit in their details of their success is not always due.

CCCLXXII.

BUT before the solution of mercury with the weaker acids took place, which is of more modern discovery, practitioners, in order to diminish the powers of the saline preparations, endeavoured to separate the mercury from its combination, by which part of its virulence acquired in solution might be lost; and thus the precipitates came to be formed. Their manner of doing this, however, did not always tend to lessen the activity of the preparation; hence they found by experience that the greater part of them were unfit for internal use.

CCCLXXIII.

CCCLXXIII.

THE first way they attempted it was by abstraction of the original acid by calcination of the saline body; but what it lost in power by the dissipation of its acid, it gained here in a different way by the process of calcination*.

The next method, therefore, was, without calcination, to attempt the removal of the acid by the addition of such bodies as possessed a more powerful attraction for it than the mercury or alkalis. But in very few cases can this destruction of acid, even by alkalis, where it is combined with mercury, be entirely accomplished; and where any portion remains, the preparation still retains a great share of its activity.

To assist, then, the action of alkalis, which was found incomplete, recourse was
next

* It is not to be understood as a complete calcination; for the calces of metals are generally insoluble, and consequently inert, but so far only as they retain their active state.

next had to the assistance also of heat, consisting in a combination of the two former methods ; but by this second process the mildness acquired by abstraction of acid was counteracted by the degree of calcination they received, so that they were experienced still very powerful.

From the want of success, therefore, to render them milder in this way, instead of the alkalis, a trial was next made of effecting the same end by their combination with compound substances ; but the same exposure to heat being in the greater number of instances necessary to accomplish their union, the same effect was experienced to attend these compositions in their still retaining a very active state. Hence the only method to render saline preparations milder consists in the abstraction of the original acid as much as possible, without allowing any farther process to take place.

CCCLXXIV.

As the strength of saline preparations depends on the quantity of acid originally entering their composition, it would be a matter of importance in each preparation of this kind to ascertain its proportion to the mercury, by which we may judge *à priori* of its power as a medicine. Thus, in the red precipitate, which is one of the most active, we find that the proportion of the acid is to mercury as five to one, and in the turpeth mineral as four to one. Hence, to form a general opinion of the strength of mercurial preparations, we observe, that the common triturated ones are but partially active, while the saline and calcined are entirely so. Thus half a grain of calcined mercury is equal to nine or ten of the triturated; half a grain of the corrosive is equal to a whole grain of the calcined; and three grains of calomel, from its small proportion of acid, are not equal to one grain of the calcined.

CCCLXXV.

CCCLXXV.

WE have thus offered a general sketch of the different means of fulfilling the third indication in the cure of lues. One symptom, however, has been supposed in a specific manner to arise from the action of mercury, which every author has endeavoured to explain, though it still remains a point involved in much difficulty. This is the increased discharge of saliva which has always a tendency to occur under its use.

CCCLXXVI.

THE last and most ingenious theory on this head is that proposed by Mr Plenck. He observes, that mercury possesses a particular attraction for mucus and saliva, and that its solution in these fluids more readily takes place than in any other. The parts about the throat are in a particular manner disposed to the secretion of these fluids; and hence mercury present in the system is determined by a specific action to
this

this situation. It acts, however, he admits, more especially upon the mucous glands; and the salivary are excited as well by their sympathy with and neighbourhood to the former as by its attraction for them. Hence he concludes, that an affinity with these fluids gives the mercury a specific determination to this source. But every day's experience proves the impropriety of chemical theory, or the application of the laws of that science to an animated body, governed by peculiar laws, as a foundation for its pathology.

CCCLXXVII.

To explain therefore the present symptom, we observe, that the action of mercury is chiefly displayed on the more minute vessels or lymphatic system. The parts of this system where its retention or permanence of action is most favoured are the glands, from their complex structure and the particular mode of their circulation. The neck and head, especially the former, are the situations where, of all others

others in the body, these glands are most numerous. They are likewise exposed here, which is not the case so much elsewhere, to an additional irritation, besides the use of the specific, the action of cold. Hence, where the lymphatic system is affected to such a degree, as to produce much irritation of these parts, for a certain degree is necessary, though varying in different constitutions, they must, from their greater exposure to external causes, become swelled and painful, affecting all the neighbouring parts. Hence, previous to salivation, all the parts about the throat appear red and swelled; and, in proof of the increased action of the absorbent system, the teeth even begin to vacillate in their sockets. The parts, however, where the effects of this irritation most evidently appear, are the glands conveying an excretion; which will be increased to a morbid degree as long as the neighbouring lymphatic glands remain in this morbid state.

CCCLXXVIII.

IN support of this theory, we find,

1. That a sudden exposure to cold, under the use of mercury, will at once produce salivation, where no previous symptoms of it occurred.

2. That no other evacuation, without carrying off the mercury altogether on its first entrance into the system, before its action is exerted, will prevent salivation.

3. Salivation sooner ensues when the mercury is introduced directly from the external surface into the lymphatic system.

4. This effect is not specifically confined to mercury; but attends also certain eruptive diseases, especially the small-pox, where these parts of the throat are very much affected. And,

5. Salivation sooner ensues in proportion to the retention of the preparation used in the body. Thus all the very stimulating

mulating preparations are apt to excite rather the excretions of sweat and urine.

CCCLXXIX.

FROM this view, the prevention of salivation may be reduced to three heads:

1. In enjoining a gradual exhibition of mercury, so that the irritation it exerts on the lymphatic system may never rise to that height which occasions a swelling of the glands in this situation.

2. In avoiding the application of those powers which sensibly increase irritation here, as the extremes of heat and cold, particularly a quick succession of either. And,

3. In diminishing the susceptibility of the parotids to receive the irritation of the neighbouring glands, so that a greater quantity of mercury may be accumulated without any such effect; and in this view the topical application of sedatives has been recommended by Mr Hunter.

CCCLXXX.

CCCLXXX.

WE proceed now to the last method of practice, founded on the theory of the disease we have endeavoured to support; which we have termed the Method by Irritation.

As the disease is rendered more active in proportion to the sensibility of the system, we would advise the lessening this by the use of opium for a few days previous to the exhibition of other remedies. The use of mercury is then to be begun; and it may be introduced either from a secreting or organic surface. If from the first, those preparations are to be chosen in which a very minute division of its parts takes place, without any highly stimulating powers; as the mercurius cinereus and calomel; and much attention is to be paid that a proper absorption of them be effected. But where its introduction into the stomach is preferred, the very active preparations are to be employed; particularly the corrosive and mercurius

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calcinatus.

calcinatus. They are to be given in small doses, and defended from producing any violent effects on the *primæ viæ* by junction with sedatives wherever symptoms of increased discharge occur to a morbid degree; as they debilitate the system, and are unnecessary to the cure of the disease, the use of mercurials is to be intermitted till they depart, and opium alone in full doses exhibited. In this way is the course to be continued till the symptoms of the disease depart; and the same rules are to be observed here as in the practice by the other methods. Wherever, during the use of mercury, much irritability of constitution appears, the bark and tonics should be used during the course. It has been a custom among the French always to premise the cure of lues by bleeding. This is evidently a proof of the action of mercury as a stimulant, which they wished to repress; and therefore they either used the mercury in too great quantity, or, by taking off its effects consisting in its irritation, they retarded the cure; for bleeding

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is never to be used in lues, except in some particular cases of local congestion from its primary action.

CCCLXXXI.

THOUGH, in describing the different methods of practice, a certain time has been mentioned as necessary for the continuance of medicine in order to its success in effecting a cure, yet this is only to be taken in a very general way; and perhaps one of the nicest points in practical knowledge is to determine when the disease is properly subdued, or when the degree of action necessary to its decay has been long enough continued. The circumstances from which authors commonly judge are,

1. The time the remedy has been employed, which extends, according to the nature of the case, from thirty days to three months.

2. Its effects on the system.

3. The quantity itself employed.

4. The colour of the diseased parts;

D d 2

which,

which, after being healed, lose much of their former redness, And,

5. Their feel; the hardness of edge being entirely gone.

Yet, in spite of these supposed tests, we have no certain criterion by which to decide this point. We can only judge from experience, which is here the best guide; and the remedy should always be continued for some time after the disappearance of symptoms.

CCCLXXXII.

It has been a general remark of all authors, that the cure of lues by mercury in a temperate or a warm climate is more expeditious than in any other situation. In a warm climate there prevails a natural increased sensibility of surface, and the action of the absorbent system corresponding with it is also more considerable. Hence mercury will have more effect in exciting the lymphatics, and the sensibility of surface will be at the same time less liable to receive a morbid impression from cold producing

ducing internal determinations. It is on this account the climate of Montpelier and some others have been found so effectual for the cure of lues.

CCCLXXXIII.

FROM the theory delivered of the constitutional disease we have endeavoured to establish the locality of its nature; and from this circumstance, independent of the mercurial course, wherever local applications can be made to the affected parts, the cure will be greatly expedited by their addition, and a smaller quantity of mercury be sufficient to excite that general action of the system necessary to the decay of the disease when the diseased parts are locally attacked. Hence we find these local effects frequently resist the use of internal remedies; and though the taint has ceased to act, the local appearance still remains.

If there is only simple inflammation and swelling, no local treatment will be necessary.

D d 3

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Where ulceration takes place, the same rules will apply which were formerly directed in the treatment of chancre; making allowance for the situation of the ulceration, whether on an external or internal surface, as more caution is necessary in the use of remedies in the last, particularly when in the throat.

Where nodes arise, the treatment is more difficult, and they form the most obstinate circumstance met with in venereal practice. There are two methods of practice to which their treatment may be reduced.

1. Attempting resolution by the application of blisters to the part; rubbing mercurial ointment into it; or, what is preferable to either of these, making an incision into the bone, so as to reduce it to a common fore.

2. Allowing suppuration to proceed, or an abscess to form; but there is danger, before this takes place, of the bone itself becoming affected. If the disease has continued any time before the node is formed,

ed, it is to be considered entirely as a local affection, and is incapable of communicating any active state of disease; and therefore the matter formed in such an abscess, tho' absorbed, possesses no specific powers. Such abscesses, on this account, should be opened largely, and treated in the ordinary way; and as the bone is generally affected, exfoliation should be allowed to take place.

Besides, the bones themselves, from the internal surface or periosteum covering also the ligaments and tendinous fascia, these come at times to be affected, and suppurations form which it is difficult to detect. For though it is a rule, that when matter is formed it works outwards to the surface; yet where it happens in the fascia, from the firmness and toughness of their texture, such a resistance is formed to its passage in this way, that it runs along under the contiguous parts: and hence proceeds the difficulty of discovering it. When detected, however, there is nothing peculiar required in the treat-

D d 4

ment;

ment; but an opening should be made as soon as possible for the evacuation.

CCCLXXXIV.

THE last circumstance to be regarded in a particular manner in the treatment of this disease is the management of the constitution itself. It was formerly the custom, and still prevails with many, to inculcate very strict rules with regard to regimen. The most antiphlogistic plan was generally employed, and the use of thin diluent fluids strongly recommended. By this itself even a tendency to increased discharges was given, independent of the action of mercury, from the natural distention of the vessels it produced, but more especially when the patients were under the use of the mineral. It is to Mr Hunter originally we are indebted for our improvement in this respect. He very justly observed, that the action of mercury was independent of any aliment received, and no way counteracted by it.

CCCLXXXV.

CCCLXXXV.

WE have thus considered the various methods of treating the venereal disease in its constitutional state; but frequently, after the use of mercury has been continued a proper time, the local appearances still remain or continue to increase. This situation of the disease has been generally distinguished under the name of Venereal Complaints Incurable by Mercury; and under it we would comprehend two opposite states of parts, which require an accurate distinction.

CCCLXXXVI.

THE first is a state of *morbid irritability*; and is always the effect of mercury, either from its too free use in any constitution, or its use even in small quantity in a very irritable habit; and it may either exist with the specific taint still remaining in the part, or with the latter having lost its specific disposition. The great art is in distinguishing these different circumstances;

ces; for the general appearance of the constitution will determine when this excess of irritability is present. This state was more common formerly, conjoined with a specific taint; when an opinion prevailed, that too much mercury could not be used for the extinction of the disease, particularly in the very early periods of practice; and which led some practitioners, from reviewing the effects produced by such practice, to compare the consequences of mercury to that stage of debility or weakness which succeeds a short-lived acute febrile disease, and which may be considered too as a proof of the particular mode of action of mercury. Hence the parts, from their very irritable state, incapable of bearing a continuance of the medicine, become daily worse under its application; and, in such cases, a cure was generally effected, not by changing the preparation, as some practitioners attempted, but by intermitting entirely its use; when, by the renewal of the constitution, this symptom coming to depart, the use
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of mercury, by being more easily supported, came to be effectual; and this practice is still continued by those who are unacquainted with the modern practice of repressing the irritability of the system at all times under the use of mercury. At present, however, when this symptom takes place, the parts have generally lost their specific disposition; and it depends on a natural state of habit, morbidly increased by the use of the remedy, which requires to be obviated. Hence, of late, the success of opium and cicuta as sedatives in removing these complaints.

CCCLXXXVII.

THE other state of parts which succeeds the constitutional disease is *indolence*; and may be defined, the continuance of irritation on a part till it is no longer susceptible of its action. It is always partial; and the sores here acquire a callosity of edge, with an absence of pain and want of inflammation, which distinguishes them abundantly from the former. It occurs generally

generally in the phlegmatic constitution, where the vital energy of the part is soon exhausted; and hence we find it is only time which here effects a cure. Tonics have been usually employed, of which you will find a long list mentioned by Dr Swediauer; but they have by no means been very successful: and to the parts themselves, warm aromatic applications, seawater, &c.

CCCLXXXVIII.

It is not to be denied, that the distinction of these two states, in particular cases, is often difficult. This occurs chiefly where they are partial, and where no general diagnostics can be drawn from the appearance of the constitution at large. In such cases, the sores have pretty much the same appearance. We can then only judge from the effects of remedies; and time, and the giving up the use of mercury, without any other applications, are always to be considered as at least one chief part of the cure.

CCCLXXXIX.

CCCLXXXIX.

FROM what has been delivered on the history and treatment of the constitutional disease, the following aphorisms may be formed.

1. The only effectual cure of lues venerea, in this climate, is to be made by means of mercury, however disguised; and the great object in using it consists,

a. In conducting it so as to prove effectual. And,

b. In avoiding the several inconveniences which generally attend its application.

2. The preference which mercury has acquired depends on its peculiar operation on the smaller series of vessels which form the seat of the venereal disease; and by the action of these vessels, more particularly, the removal of all diseased parts is effected.

3. Mercury comes in contact with the diseased parts by its solution in the fluids; and hence those preparations of it are to

be preferred which receive most readily this solution, and which at the same time remain longest applied to the diseased parts.

4. The preparations most readily soluble are those adapted to internal use; and this mode of exhibiting mercury is therefore to be preferred to all others: but as such preparations, in proportion to their easy solubility, are generally too stimulant to remain long applied to diseased parts, to favour their retention the irritability of those parts is to be lessened, and the action of the preparations, as stimulants, thus repressed.

5. But where mercury is long persisted in, and to that degree which is necessary for the removal of the disease, even though the irritability of the system be somewhat lessened, its natural action comes at last to prevail, and a tendency to increased discharges, the characteristic of its operation, to take place. The management, then, consists in either intermitting its use till such discharges cease; or determining its operation,

operation, by particular combinations, to excite those which are least hurtful to the system and least inconvenient to the patient.

6. The most troublesome discharge which mercury occasions, and which it possesses always a peculiar tendency to excite, is salivation; and in addition to the former management, to prevent its occurrence (5.), sedative applications, in the form of gargle, should be early and constantly made to the inside of the mouth, or seat of the salivary glands.

7. The dose of any preparation of mercury can only be very generally proportioned at first, till the constitution of the patient, or its susceptibility with regard to the operation of mercury, be once ascertained. Hence this should be particularly enquired into and studied: for the constitution, in regard to the action of this remedy, is peculiar; and, though little affected by other stimuli, it is often materially influenced by this, and *vice versa*.

8. The obstinacy of the disease is not
to

to be judged of from the appearance of symptoms, but from the state of the constitution and the small tendency it discovers to receive the operation of mercury.

9. Besides the internal use of mercury, where the situation of symptoms admit, local applications will greatly expedite the cure; but they should be only such, in the constitutional disease, as obviate irritation, or that morbid action of the vessels of the part preventing its renewal.

10. The time necessary for the continuance of mercury cannot *à priori* be determined. The only judgement is to be formed from the disappearance of symptoms; or, if continuing, the state of the affected parts changing to the worse under its use.

11. All parts under real venereal irritation possess a certain opposition to the action of mercury; in consequence of which, its introduction, we find, removes the morbid cause. When removed, however, this opposition, or capacity of bearing the
action

action of mercury, ceases; and, if continued, a new morbid state is even induced by the remedy itself. The nature of this state is still unknown. Morbid irritability seems in many cases its leading characteristic; but even the indication arising from this symptom does not always succeed.

12. This new morbid state occurs more frequently in some constitutions than in others. Hence mercury may be continued for some time beyond the decay of the disease, without any danger in many; but in others, particularly the irritable, a single dose is attended with manifest hurtful effects.

13. As mercury acts beyond the circulation, and is not affected by it, there is no necessity for any alteration in the regimen of the patient; and the antiphlogistic course produces that debility which increases more the tendency to discharges from its action. Where slight salivation, however, occurs, as mastication is then painful, su-

E c stenance

stenance must be taken in a very soluble form.

14. The custom of bleeding, and the use of the warm-bath, previous to a mercurial course, are entirely to be discarded; the one, as manifestly weakening the system, and rendering it less capable of bearing the action of mercury; the other, as morbidly increasing the natural irritability of the surface, so as to be more readily affected by exposure to the atmosphere producing inflammatory affections.

15. The only power influencing the action of the venereal virus is *cold*; and in what manner it does this is still undetermined. We observe the disease, however, more violent in a northern than in a southern situation.

CCCXC.

HAVING thus examined the nature and treatment of the constitutional disease in the adult, it remains to consider its appearance in the foetus, or when attacking the
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the period of infancy. This subject requires very particular attention; for tho' taken notice of by most authors, they have neither ascertained minutely its symptoms, nor have they drawn any comparison between it and as appearing in the adult.

E e 2 VENEREAL

VENEREAL DISEASE OF CHILDREN.

CCCXCI.

THE lues of infancy we find generally displays itself first about the genitals and nates; more rarely, it attacks the face, breast, and lower extremities. Its appearance in these situations is first in the form of copper-coloured pustules, similar to what distinguish the second stage of the constitutional disease in the adult. These pustules spread; and the body is covered with an appearance from them of what
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are commonly named Scorbutic Spots. Instead of pustules, however, it is frequently observed in the form of livid blotches. Whichever of these appearances it assumes, it continues to spread about the face, eye-brows, chin, &c. having the same appearance as when recovering from the confluent small-pox. The mouth also comes internally to be affected; and here it displays an appearance similar to aphthæ. These change into sores, and gradually spread backwards to the fauces, and forwards to the lips and nostrils; occasioning stoppage of the nose, difficulty of breathing, and other symptoms attending an impeded action of these parts. The nurse's nipples then begin to turn raw, and to assume the appearance of chancre; and in this way the disease is transmitted from the child. With time, the body of the child becomes wholly covered with ulcerations; but before arriving at this height, the constitutional disease generally displays itself on the nurse by ulcerations of the throat.

CCCXCII.

THE eyes and the ears of the child become also, in the progress of the malady, considerably affected by matter forming in these parts ; and in process of time, if the disease is not removed, hectic symptoms coming on prove fatal. The affection of the eyes is very characteristic of this species of lues, and has been particularly remarked by the physicians of the Venereal Hospital for children in Paris.

CCCXCIII.

THE time at which the disease appears in children is most frequently ten days or a fortnight after birth ; and, previous to this, the child is apparently healthy, and the skin clear and smooth. At other times, however, it is coeval with birth, or appears much earlier.

CCCXCIV.

FROM this description, the peculiarities that may be remarked in this species of lues are,

1. The

1. With respect to its different appearance. And,
2. The mode of infection.

CCCXCV.

THE chief circumstances in which it differs from the constitutional disease of the adult are,

1. In showing a specific attraction to the genital parts, independent of the mode of introduction.
 2. In displaying no primary action.
- And,
3. In discovering no tendency at first to affect the throat.

CCCXCVI.

THE cause of the first of these cannot be explained; and all poisons, we find, possess a specific attraction to particular parts.

With respect to the second, even at times in the adult there is very little primary operation of the virus, as in the lymphatic chancre; and we find that excess of

secretion in parts diminishes the action of the virus on its introduction. In the foetus and in childhood, the activity of the lymphatics is not equal to what is observed afterwards; and the larger vessels possess then more power. Hence we suppose, that from the excess of fluids in the habit of the foetus, and the small activity of the lymphatics, the virus may be introduced without any local effects, till it is determined by receiving a new stimulus from the force of the circulation to the parts it attacks.

The third circumstance, or its small tendency to affect the throat at first, may be explained by observing, that though between the genital organs and the throat there prevails a remarkable sympathy, as allowed by all authors; yet this does not take place till the genital organs become fitted for executing their proper offices, as displayed by the change they receive at the age of puberty. Till the age of puberty, then, there is no particular irritation on these glands to produce this sympathy,

pathy, while the natural determination of the circulation being to the skin, the disease therefore appears chiefly here.

CCCXCVII.

THE mode of infection in this case is a subject attended with some difficulties; and we consider it as derived either from the male or female.

CCCXCVIII.

THE first of these is perhaps the rarest; but that the semen may be conveyed to the uterus in a vitiated state, by accidental contamination in its passage through the urethra, is not to be doubted. How it afterwards acts, it is impossible to explain; yet the fact is sufficiently certain, that children are every day born with appearances similar to lues, where no taint ever prevailed in the habit of the mother, and where therefore we have reason to suppose the original stamina at the time of impregnation received some morbid change.

CCCXCIX.

CCCXCIX.

THE second mode of infection, or from the female, is by far the most frequent; and it may be communicated here, either,

1. By the virus circulating in the general mass; and determined, without affecting the mother, through the circulation of the placenta to the child.

2. By contamination in its passage thro' the vagina at delivery. Or,

3. By suckling from an erosion of the nurse's nipple.

CCCC.

THE first of these is considered by Mr Hunter as barely probable; but it is a known fact, that the contagion of small-pox has been conveyed to the foetus without affecting the parent; and we have reason, therefore, to suppose, that other contagions may be conveyed in a similar way. We admit, at the same time, that it is not a constant effect, as contagions affecting

affecting the mother seem also often escaped by the foetus; yet where the virus exists in the circulation of the parent, from the increased determination to the uterus favouring its deposition, it may be communicated in this way.

CCCCI.

FROM this reasoning, then, we conclude, that where a child is born with symptoms of lues, as described, or rickets appear soon after birth; or where a woman repeatedly miscarries, without any evident cause, about the sixth or seventh month, and the child is expelled dead or in a putrid state; or if the motion of the child formerly felt ceases at that period, though it is retained for the nine months, being then born in the former state; or, if living, so shrivelled and emaciated in every part as to bear the marks of old age, an appearance strongly remarked by the physicians of the Venereal Hospital for children at Paris; in all these cases, the infection has either been communicated from the father or in this way.

But

But as other infections, it was remarked, are not always communicated in this way, though existing in the system of the mother, it is therefore most probably owing to the father; and the removal of infection in him alone is to be considered as the only means of preserving the future offspring, or guarding against those hereditary affections to which they appear subjected.

CCCCII.

THE second mode of infection, or by the vagina in its passage at delivery, is more frequent than the former. It was first taken notice of by Dr Hunter; who remarked, that the disease did not appear till ten days or a fortnight for the most part after birth; in which period the virus had time to be fully introduced into the system. The inactive state in which the virus, as formerly remarked, frequently remains in the vagina, strongly favours this opinion: and hence, even where no venereal symptom can be traced in the mother,

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we find that the fœtus often discovers the infection soon after birth ; and that, by putting the mother solely on a mercurial course, the disease may in a future delivery be prevented. Dr Swediauer has supposed, that in this way alone the venereal disease can be conveyed to the fœtus, if we may make any conclusion from what he delivers ; for he has doubted, whether the disease has ever appeared in children at birth. Of this, however, there have been many instances. Wherever, therefore, the child has been born with marks of infection, the mother should not be put on a mercurial course unless she suckles, as the infection is probably derived from the father solely. Where, again, the disease does not appear for some time after birth, or the period mentioned in its history, it is then to be considered as owing to the virus derived from the mother, and a mercurial course recommended to her. It is a matter, indeed, of the utmost importance to be able to detect to which of the parties the infection of the child

child is owing, as it is only by this we can be able with certainty to effect a cure. It is often attended with considerable difficulty, and can only be known from the previous history of the patient; but as this, in the case of the female, we can hardly learn, for delicacy forbids such an inquiry, we can only judge from the time of appearance and other circumstances in the infection of the child. On this account, indeed, it will be generally most proper that both parties are put on a course of medicine; and in such situations, as the infection is chiefly communicated by the genitals, particular attention ought to be paid to their state.

CCCCIII.

THE last way in which infection we mentioned can be conveyed to the child, is by means of the nurse; and to determine whether the contagion is received in this way is sometimes pretty difficult. If, however, the first symptom on the child is the aphthous appearance of the mouth,
I there

there is great fufpicion of it ; for we find, that this affection of the mouth does not occur for fome time when the infection is not received from the nipple. And fome authors have even alleged, in proof of this, that if mercury is given immediately to the child on the firft marks of the difeafe, no infection will often be conveyed to the nurse, as the progrefs of the difeafe is thus ftopt, and the affection of the mouth prevented. The character of the nurse, her connections, and the examining her ftate of health at the time, will be able to give fome farther information, and particularly if her own child has been ftill-born ; or, if alive, whether there are any marks on it of the prefent difeafe ; or whether the woman fuckling it has any affection of her breast. The nipple, alfo, of the nurse herfelf is always here more or lefs affected, though it is at times fo flight as hardly to bear detection ; yet, without this, we conceive that the difeafe could not be communicated, as no matter could be formed to produce the contagion ; and we know, that
the

the milk itself is entirely free from the disease. Where, again, the contagion is communicated from the child to the nurse, the nipple of the nurse becomes swelled, and raw, small vesicles appear on it, which degenerate into chancres; and these are succeeded sometimes by an erysipelatous eruption, similar to herpes, on the breast itself; but more frequently the neighbouring glands of the axilla swell, and the lymphatics are felt from the seat of the infection in the nipple towards it in the form of a straitened cord; and the disease being thus introduced, soon discovers itself by the same appearances which attend its constitutional operation in the adult, though it often here displays a virulence uncommon to what is observed where it is first introduced by a primary action on the genital system: and several most lamentable instances are to be met with in different publications of the effects of venereal infection communicated in this way.

CCCCIV.

HAVING thus pointed out the circumstances which distinguish this disease in children, and the various ways in which the infection may be conveyed, we proceed, in the last place, to consider the method of cure.

By many authors, the venereal disease in children has been considered as incurable. This is, however, by no means the case, and those acquainted with practice will find it the reverse; for it yields much more readily to the use of mercury than in the adult. Children, however, are more easily cured before than after weaning; and those born with the disease are more difficult to cure than those who receive the infection at birth, or afterwards from the nurse. It is also to be remarked, that from the calculations of the physicians attending the Venereal Hospital for children near Paris, it appears that a greater proportion of infected children survive

F f

childhood

childhood than of healthy children entrusted to the care of common nurses.

CCCCV.

IN curing the lues of children, there are two ways of exhibiting mercury; either by giving it to the nurse or the child.

In giving it to the nurse, we are less sensible of its operation; and, before her fluids are impregnated, there is danger of the child sinking under the disease. From the experiments of the late Dr Young, it was found even difficult to impregnate the milk; and the cure succeeding in this way he has attributed rather to the mercurial atmosphere in which the child, from sleeping with the nurse, and by being kept constantly in her arms, is confined. This difficulty, however, of impregnating the milk is denied by another author; who observes, that by evaporating a quantity of it, it generally possesses so much mercury as to bear detection. But as it is often difficult to procure a nurse
who

who will undertake the task of suckling such children; and the mother, if diseased herself, should never be allowed to do it; it has been proposed to impregnate with mercury the milk of other animals, and in this state give it to the child. Thus, in Van Rosenstein's treatise, we find directions for clearing the skin of a goat of its hair, and rubbing it with mercurial ointment, which is to be performed in the same manner as in the common method by frictions; when its fluids coming to be loaded with the remedy, it will thus be conveyed in an easy and safe manner to the child.

CCCCVI.

THE exhibition of mercury to the child itself is a practice now more generally followed; and as a very slight irritation from it is here sufficient to effect a cure, in order that this irritation may not be too strong, those preparations are to be preferred which have a tendency to pass off by the bowels, by which any excess of irrita-

tion is prevented; and from the quantity of fluids in the infantine state, this evacuation, unless carried far, is not attended with that debility which follows so remarkably any increased discharges in the adult. Children possess at the same time, though thus susceptible of the slightest irritation, little tendency to salivation; which would show, that the lymphatic system is not in the same state of activity as afterwards. As a proof of the small tendency they possess to salivation, a case used to be mentioned by the late Dr Young, where twelve doses of calomel were given to be used in twelve days. By mistake, however, the whole number was used in six, and the child was much relieved, though not the smallest symptoms of salivation appeared. In support of what was mentioned, that a very slight irritation will cure the disease in children, we find, that the guaiac, and the other woods which in this climate have little effect on the adult, frequently perform a cure here.

CCCCVII.

THE preparations of mercury commonly employed in this case are the calomel and Van Swieten's solution. The former of these is generally exhibited in the quantity of a grain every night; and, after six or eight doses, a sensible amendment is perceived. The same dose is then repeated at the distance of every second night; and, in twelve days longer, the disease is commonly removed. Where the solution, again, is employed, thirty drops make a sufficient dose, and it should be given in milk. The same rules are to be observed in continuing it as with the calomel, and the same success may be expected. It is the favourite remedy of Van Rosenstein in the venereal complaints of children; and wherever given in an increased dose, it has a tendency, like the calomel, to pass off by stool.

F I N I S.

ERRATA.

- Page 52. line 20. *for* vesicul *read* vesiculæ.
119. line 20. *for* ulration *read* ulceration.
147. line 6. *for* arise *read* arifes.
150. line 8. *for* its *read* theirs.
216. line 14. *for* pit *read* fret.
230. line 6. *omit* on.
319. last line, *for* and *read* it.
375. line 13. *for* 3ii. *read* 3ii.

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